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# Agricultural Situation:

## People's Republic of China

Review of 1980 and Outlook  
for 1981

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## **ABSTRACT**

In 1980 PRC grain production fell but output of most cash crops increased. Agricultural imports surpassed previous highs. The United States shipped a record level of agricultural commodities to the PRC during 1980. Agricultural production will increase in 1981, but imports will grow more slowly.

**KEYWORDS:** People's Republic of China, PRC, agricultural production, agricultural inputs, agricultural policies, foreign trade, livestock.



## FOREWORD

This report summarizes the major agricultural developments in 1980 and the 1981 outlook for the People's Republic of China (PRC).

The report updates and supplements statistics and other information found in Supplement 6 to WAS-21, *People's Republic of China Agricultural Situation: Review of 1979 and Outlook for 1980*.

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The PRC Section welcomes suggestions and comments concerning this report. Questions should be directed to PRC Section, Asia Branch, International Economics Division, Economics and Statistics Service, USDA, Room 350, 500-12th Street, SW., Washington, D.C. 20250.

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### ABBREVIATIONS FOR MAJOR SOURCES CITED

BR	<i>Beijing Review (Peking Review)</i> , distributed by Guoji Shudian, Beijing, China.
FB	<i>Foreign Broadcast Information Service, Daily Report: China</i> . National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia.
JP	U.S. Joint Publications Research Service, <i>China Report</i> , National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia. This report is published in three separate sections so that in publication: JP, EC refers to the <i>China Report—Economic</i> Affairs; JP, POL refers to <i>China Report—Political, Sociological</i> and Military Affairs; and JP, AG refers to the <i>China</i> <i>Report—Agriculture</i> .
PO	Refers to interviews with provincial officers.
RmRb	<i>Renmin Ribao (People's Daily)</i> , Beijing, China.
SWB	<i>Summary of World Broadcasts, the Far East Weekly</i> <i>Economic Report</i> , British Broadcasting Corporation, Reading, England.



# CONVERSION EQUIVALENTS AND TERMS

## Conversion Factors:

<u>Chinese</u>	<u>Metric</u>	<u>English</u>
1 mu (mou)	0.0667 hectares	0.1647 acres
15 mu	1.0 hectares	2.4711 acres
1 jin (catty)	0.5 kilograms = .0005 tons	1.1023 pounds
1 dan (picul-100 jin)	50.0 kilograms = .05 tons	110.23 pounds
1 dun (ton)	1,000.0 kilograms = 1.00 tons	2,204.6 pounds
1 jin/mu	7.5 kilograms/hectare	6.693 pounds/acre

<u>crops</u>	<u>pounds/bushel</u>	<u>1.0 bushel equals</u>	<u>1.0 ton equals</u>
wheat, potatoes, soybeans ..	60	0.02722 tons	36.743 bushels
rye and corn .....	56	0.02540 tons	39.368 bushels
barley .....	48	0.02177 tons	45.929 bushels
oats .....	32	0.01452 tons	68.894 bushels

Cotton: 1.0 metric ton: 4.593 bales of 480 pounds each.  
4.409 bales of 500 pounds each.

## Terms:

Metric units are used throughout.

Dollars refer to U.S. dollars.

Province ..... all provincial level administrative units including  
Provinces, Autonomous Regions, and three Municipalities.

Regions ..... Northeast = Heilongjiang, Jilin, and Liaoning provinces.  
North = Hebei, Shandong, Shanxi, Henan, Beijing,  
and Tianjin provinces.  
East = Jiangsu, Anhui, Zhejiang, and Shanghai provinces.  
Central = Hubei, Hunan, and Jiangxi provinces.  
South = Fujian, Guangdong, and Guangxi provinces.  
Southwest = Sichuan, Yunnan, Guizhou, and Xizang provinces.  
Northwest = Shaanxi, Gansu, Ningxia, Nei Monggol, Qinghai,  
and Xinjiang provinces.

## Miscellaneous

grains ..... corn, barley, millet, gaoliang (sorghum), oats, rye,  
buckwheat, minor grains, and pulses.

## Overwintering

crops ..... crops planted in fall and harvested in late spring or early  
summer.



# PEOPLES REPUBLIC OF CHINA AGRICULTURAL SITUATION

## Review of 1980 and Outlook for 1981

### SUMMARY

China's agricultural production should increase in 1981, but agricultural imports probably will not exceed the 1980 record. Grain production is expected to be better than 1980's weather-affected outturn, but probably will not surpass the 1979 record. Wheat area is down 4 percent from 1980, but weather conditions thus far this year are better than last year, and output in 1981 should surpass 1980. Rice area will be about the same as in 1980; output is expected to edge up marginally. Coarse grain production should expand in 1981 as well.

Oilseed production is expected to continue to grow in 1981, with increases coming from rapeseed, sunflower, cottonseed, and soybeans. With normal weather and no major change in the favorable 1980 incentive package, cotton production may exceed the 1980 record. Sugar beet area and production should approximate the 1980 level, and sugarcane area is expected to be up in response to the Government's crop specialization program. The rate of increase in livestock numbers will likely be smaller than in previous years because of reduced 1980 grain production and a shift in emphasis to greater efficiency in the livestock sector rather than larger inventory numbers. Livestock raised by farm households will increase because the size of private plots has been allowed to increase.

Uncertainty about agricultural production in 1981 stems from the usual lack of foreknowledge about weather and from uncertainty as to how far the Government will go in trying to stabilize grain area. Strong concern was raised over the extent to which acreage has shifted away from grain in the past several years. In addition, it is difficult to assess what changes have been or will be made in economic incentive measures. Likewise, it is hard to foresee how production teams will respond to the changes.

Several diverse elements will hold this year's agricultural imports close to 1980. Population increases and a general rise in incomes and greater use of material incentives will continue to put demand pressure on the agricultural sector. The Government's response to meeting these demands depends both on the domestic supply situation for specific crops and on its longrun foreign trade strategy of limiting agricultural imports. Grain imports in 1981 will remain high, because grain production was off in 1980 and China's leaders want to continue to insure grain rations to urban dwellers and farmers in regions specializing in cash crops. Imports of cash crops, cotton and oilseeds, will decline because of the good domestic harvests of these crops in 1980. Purchases of farm products from the United States during calendar year 1981 are likely to level off at about last year's \$2.3-billion record. However, the United States will continue substantial grain exports to China in coming years. The US-PRC grain agreement, signed in October 1980, calls

for 6 to 9 million tons of grain to be shipped annually from 1981 to 1984. Wheat exports in calendar 1981 will be above the 6.4 million tons shipped in 1980. Exports of cotton and soybeans may decline somewhat.

China's overall economy expanded in 1980 but not at the rates achieved in 1979 and 1978. Using the "gross value of output" concept to measure economic growth, China's planners indicated that the 1980 economy expanded by 7.2 percent over a year earlier, compared to 8.5 and 12.3 percent, respectively, for 1979 and 1978.<sup>1</sup>

The gross value of agricultural output registered a 2.7-percent increase over the previous year, compared to 8.6 in 1979 and 8.9 percent in 1978. China's overall agricultural production was up during 1980, but gains for most cash crops came at the expense of grain production. Policies and incentives that greatly stimulated production of crops other than grains strongly influenced output during the year. Grain production in 1980 dropped 4.2 percent because of poor weather and reduced acreage. Drought during the fall of 1979 and subsequent problems in the spring contributed to a sharp reduction in wheat output, which fell by 13.7 percent to 54.2 million tons. An extended period of wet weather and associated flooding, together with lower area, caused a substantial reduction in double-cropped rice production in Central and East China. This was the major factor behind the drop in 1980 rice outturn, which fell to 139.3 million tons, 3.1 percent below the 1979 record. Coarse grain production was also down slightly.

Nevertheless cash crop production rose substantially. China's 1980 cotton outturn was a record 2.707 million tons, 6.2 percent above the previous record in 1973 and 22.7 percent over 1979. The increase for the year came from a 6.7-percent expansion in area and a phenomenal rise in yields for the traditional cotton-growing areas of northern China. The expansion in both area and yield was mainly because of greater incentives for cotton producers, as well as the introduction of new varieties.

Oilseed production in 1980 was up 15 percent, the third consecutive year of increases. Much of the rise came from larger acreage, because the area for all oilseed crops was up. The most dramatic jump came from sunflowerseeds, with output rising to an estimated 900,000 tons, more than double 1979. Area and production of the crop has grown rapidly in recent years. Outturn of peanuts and cottonseed was also up substantially. Soybean production totaled 7.9 million tons, 5.6 percent above 1979. Rapeseed output was off 0.7 percent because of lower yields of winter rapeseed.

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<sup>1</sup> The concept of gross value of output differs from the concept of Gross National Product that is used in the West.

The livestock sector also showed gains, but at a slower pace than in 1978 and 1979. Marketing of hogs, the major source of meat, was up, and per capita meat consumption rose to about 12 kilograms a year.

China's agricultural imports rose substantially because of domestic demand and, in the case of grains, lower production and the use of imported grain to replace production from area shifted to nongrain uses. Grain imports during 1980/81 (July-June) are expected to reach a record 14.7 million tons, 36 percent over 1979/80. All of the increase is in wheat, imports of which are estimated at 13.7 million tons, 54 percent higher than the previous year. Corn imports during 1980/81 are expected to be only about 1 million tons, down nearly 50 percent from a year earlier.

Cotton imports for 1980/81 will likely be 3.2 million bales, only about 18 percent below the 1979/80 record. Continued large increases in cotton use are cushioning

the impact of the large expansion in the 1980 cotton crop and larger synthetic fiber production. Higher oilseed production has reduced pressures for soybean imports, which, for 1980/81, are projected to be about 40 percent below the 1979/80 record of 810,000 tons.

China's agricultural trade with the United States reflected the overall rise in agricultural imports during 1980. U.S. exports of agricultural products to China climbed to a record \$2.27 billion in calendar 1980, more than double the 1979 record of \$997 million. Higher wheat imports, which rose by \$866 million to a value of \$1.1 billion, provided much of the gain. Cotton imports more than doubled, and shipments of soybeans, soybean oil, cattle hides, and tallow were also up. U.S. imports of agricultural products from China showed a 31-percent gain, but the U.S. agricultural trade surplus with China rose from about \$900 million in 1979 to \$2.1 billion in 1980.



## SAME COURSE BUT A MORE CAUTIOUS AGRICULTURAL POLICY

At first glance, news reports in the last 6 months suggest that China has undergone another major political and economic change. For example, Premier Hua Guofeng and First Vice Premier Deng Xiaoping have stepped down. China's newspapers are full of reports of retrenchment and readjustment. Large numbers of contracts and agreements with the West were either cancelled or delayed. A budget deficit of over \$7 billion (11 billion yuan) was incurred in 1980. Growth in agriculture slowed down after a record year in 1979. China's request to the United Nations (U.N.) Disaster Relief Organization for aid to victims of floods in Hubei Province and droughts in Hebei Province was interpreted by some as a sign of failure.

However, a closer look reveals that economic policy is still on the same course. The widely publicized economic changes and the cracking down on some economic activities are only adjustments to basically unchanged policies. This is also true of agriculture, where it is important to differentiate between agricultural policy *per se* and the implementation of policy.

### Basic Agricultural Policy Unchanged

Under the fundamental goal of modernizing China and raising living standards, agricultural policy in 1980 and through early 1981 remains essentially unchanged. The basic features of current agricultural policy can be categorized under the following headings.

#### Diversification of Agriculture

Within the national economy, the agricultural sector has first priority, followed by light industry, with heavy industry taking the rear. More rapid development of the first two sectors is recognized as necessary to reach accelerated growth and modernization. To accomplish these goals, the development of a more balanced agricultural sector is now emphasized. Historically, production of the five agricultural subsectors has been highly uneven, with crop production dominating. In 1979, the gross value of the five subsectors was: crops, 67 percent (of which 75 percent is grain); livestock, 14 percent; forestry, 2.8 percent; sideline, 15 percent; and fishery, 1.2 percent. Within crops, the past one-sided emphasis on grain is being replaced with a more balanced proportion between grain and cash crops.

#### Developing Both Collective And Individual Production

The most striking feature of current agricultural policy is the extent of pragmatism and material incentives introduced in the programs now in practice.

To develop the collective economy, systems of "contract down to the household," "assigning production tasks to the household," and "production responsibility at the local level" are widely encouraged, even though the production team is still the basic accounting unit. The central Government has begun to decentralize farm management decisions on production, finance, investment, and income distribution. Decisions are to be left in the hands of production teams as long as they can meet procurement requirements. Therefore, production according to local conditions or specialization is not only allowed but encouraged by Government policy. For example, in 1980, producers in cotton areas received another 10-percent increase in procurement prices, guaranteed grain rations so land would not be diverted to grain production, and a larger chemical fertilizer supply in order to induce higher cotton production. As a result, the cotton production rose 22.7 percent over 1979, despite a significant drop in production in Central and East China due to poor weather early in the season and severe flooding in the summer.

Further, economic efficiency is also considered essential. For example, past practices of striving for a higher yearend hog inventory or larger rice sown area, regardless of whether water supply was available for double cropping, are now discouraged. Instead, a higher hog finishing rate (ratio of hog slaughtered over yearend hog inventory) and total rice production are the targets.

Better coordination between agriculture, light industry, and commerce is also advocated in an effort to change agriculture from a self-contained sector to a more integral part of the whole economy.

Furthermore, more material incentives are being put into practice in the private sector. Rural free markets now total 37,000 in number, and trade in the villages is flourishing. The portion of commune members' income derived from private plot and family sideline production (25 percent in 1979) is rising. A recent report indicating that total private plot area is to be increased from the current estimate of 6 to 7 percent to 15 percent of the total cultivated land suggests that the private share should continue to increase.

More importantly, the enlarged area of private plots will increase feed production, which in turn will greatly enhance expansion of the livestock sector. In China, about 80 percent of the hogs and an even larger proportion of the poultry are now raised by commune households.

#### More Participation in International Activities

The expansion of agricultural sciences and education will be critical to agricultural modernization in the long run. Thus, in addition to increased funding for domestic



agricultural universities and research institutes, China has markedly increased participation and cooperation with Western countries, particularly with the United States, and with international organizations, such as United Nations Development Programs, the World Bank, and the Food and Agriculture Organization. These activities encompass a wide range of areas from agricultural science and technology to economic management and statistical systems.

## Implementation Slowed By Problems

The recent pattern of government activities regarding the general economy, as well as the agricultural sector, is to continue the policies of pragmatism and material incentives that were in practice since 1978. When policy implementation goes too far or too fast, resulting in either unexpected problems or problems of unexpected magnitude, then adjustments are made by both direct government action and/or by reducing incentives. The key point here is adjustment, not policy reversals.

A flurry of central and provincial government actions were used to correct these problems. For example, strict price controls in state-operated stores and rural free markets were imposed in all provincial level units, because of uncontrolled inflationary price increases. Stable grain production is stressed in no uncertain terms, and further shifting of area from grain to economic crops will be curtailed in 1981. Jiangsu and Fujian provinces plan to adopt the 1977-79 grain production average as the base for setting grain procurement quotas to raise the portion of total grain going through government procurement channels. These provincial experiments could be forerunners of a national trend. Also, because of budget deficits, investment for rural capital construction and funding for science and technology cooperation programs were trimmed sharply in early 1981.

## Potential Problems for the Future

There are several problem areas where future adjustment must be made by the Government. The most potentially explosive phenomenon is the uneven distribution of rural income by region. Per capita income from collective distribution in 1979 ranges from a high of 214 yuan (1.5 yuan equals \$1) for Shanghai to a low of 46 yuan for Gansu Province, with a national average of 84 yuan.<sup>2</sup>

There are also wide differences within provinces, counties, and even communes. The major causes of the drastic disparity are regional differences in natural endowments and, to a lesser extent, management. With material incentives playing an increasing part, this problem will

worsen. Some areas simply do not have the soil, water, and/or terrain to sustain themselves by agriculture alone or by the type of agricultural enterprises currently in practice. To lift these areas out of this predicament, more well planned aid from the central Government will be required in addition to efforts by local governments.

Another problem is the low proportion of agricultural production that goes into government procurement channels. A recent *People's Daily* article reported that the present commercial rate was only 15 percent for grains (of total production, 60 percent is for rations; 20 percent for seeds, feed, collective reserve and others; and 20 percent for state purchases of which 5 percent is resold to the place of production); 55 percent for oilseeds; 85 percent for economic crops; and 65 percent for pork and fishery products. There are authentic cases of insufficient supply to satisfy basic needs for commodities, such as sugar and soybeans. But, in some cases, the problem could also be caused by rich areas hoarding more than needed, while poor areas suffer due to shortages, such as in food grains. There are numerous reports that some communes stored 1 or 2 years worth of grain stocks in farm houses.

A third problem area where the Government may take action in the near future is to prevent a breakup of the current structure of agricultural production units, such as the splitting of production teams into smaller sized units. Because the Government has encouraged the system of assigning responsibility for production tasks to households and contracting for production with households, there have been reports that in some remote areas commune members took it upon themselves to form new production teams as small as two households. Government preventive action may be necessary simply because the concept of a household as the basic production unit is still not acceptable in current ideology, regardless of the economic merit or demerit of the idea.

There are a number of other problem areas that will require government attention if the push for decentralization and a greater market orientation continues. A greatly improved infrastructure will be essential as the share of agricultural production consumed on the farm declines and rural China's links with national markets increase. This will require a well organized service sector for agricultural production and producers, including a timely and accurate information network. Improved transportation, storage, and marketing systems are also needed. Finally, a mechanism—be it market-oriented or government-directed—that can give timely and accurate signals to the economy for appropriate expansion or contraction of production, and efficient input and output allocation in agriculture without resorting to reactive crisis management, will be critical.

In summary, Chinese agricultural policy since 1978 played a major part in accelerating growth. This is evident because agricultural production during 1977-80 increased at a higher rate than during the earlier 1970's. Rural income rose and living standards improved. Moreover, governments at both central and local levels did not hesitate to take corrective action once a problem was discovered. However, there will not be quick and easy answers to the problems in agriculture. The period of

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<sup>2</sup> This is an incomplete indicator for measuring income distribution. Income from private activities is of increasing importance; however, it is not included in the collective income.



economic adjustment will have to be extended. Also, more corrective actions are expected as old problems persist and new problems arise. At this time, the threshold

beyond which adjustments will no longer be sufficient and changes in basic agricultural policy might have to be contemplated is unknown. (Charles Y. Liu)

## UNEVEN DEVELOPMENT OF AGRICULTURE

China's agricultural production in 1980 was mixed. The grain crop, while still the second best in China's history, was off by 4.2 percent. In contrast, the outturn of most cash crops was up sharply. Production of cotton, most oilseeds, sugar beets, and tea rose substantially. The only major cash crops experiencing lower production were cured tobacco, fruits, and vegetables. China's production and consumption of livestock products during the year was above 1979. However, the yearend hog inventory and the number of breeding sows were down somewhat, indicating potential problems next year. The gross value of agricultural output, an important indicator of overall rural economic performance, increased by 2.7 percent for the year.<sup>3</sup> Rural income rose for the third consecutive year because of higher prices for some farm products, increased cash crop production, and a substantial increase in sideline and private plot activity by rural households.

The year's developments in agriculture were influenced by both weather problems and the impact of substantial changes in economic policies for the countryside. Poor weather had a serious effect on grain crops during 1980. Severe drought affected the planting and growth of overwintering crops in major areas of the North China Plain. A reoccurrence of drought in late summer also affected fall-harvested crops in parts of these areas, such as Hebei and Shandong.

In contrast, the problem for the Central and East regions was too much rain. An extended period of cloudy and wet weather with below normal temperatures affected crop yields in the middle and lower Yangtze River Valley. Because of heavy summer rains, river flow was exceeded only by that of 1931 and 1954, both years of heavy flooding. Dikes along the river were breeched and flooding caused severe local damage, particularly in Hubei province.

Agricultural policy had a major impact on the mix of crop production in 1980. A complex set of policies—regional specialization, reduced direct control, and new producer incentives—contributed to an accelerated shift of crop acreage from grains to cash crops. The extent of this shift is suggested by USDA acreage estimates,

which show a decline in grain area (wheat, rice, and coarse grains) of 1.3 million hectares for the year. There were substantial increases in area of cotton, oilseeds (particularly peanut, rapeseed, and sunflower), and sugar beets.

The policy measures and the changed structure of incentives apparently affected more than acreage. In the case of cotton, for example, record yields were achieved over much of the North China Plain, despite weather that was severe enough to reduce grain yields. This suggests a substantial reallocation of fertilizer, irrigation, and manpower away from grains to cash crops.

While procurement prices for some crops, e.g. cotton, were raised above 1979, these increases were not in and of themselves sufficient to explain the large supply response.<sup>4</sup> Central Government constraints on local decisionmaking were loosened through the elimination of acreage quotas for grain crops and an emphasis on suiting production to local conditions. Moreover, returns to cash-crop producers were raised by the provision of bonus supplies of food grains and fertilizer to production teams fulfilling basic procurement quotas, the return of a share of processed output to producing units, and by changes in procurement quotas that made a greater portion of sales to the state eligible for premium prices.

Perhaps the single most important feature of the incentive program was the guarantee of greater state supplies of grains to those areas that were singled out to specialize in cash-crop production. Past efforts to promote specialization floundered because of inadequate grain supplies and the resulting local priority for grain production. China's higher grain imports played a key role in freeing up state grain supplies for distribution to cash-crop areas.

The success of the program for increasing acreage and production of cash crops has given the China's leaders second thoughts. By the end of the year, concern was growing about the extent of the drop in grain acreage, and policy was shifting in the direction of halting further declines in grain area.

<sup>3</sup> Gross value of agricultural output (GVAO) is the most commonly reported indicator of overall rural economic performance. It includes the gross value of output of crops, livestock, forestry, fisheries, and rural sideline production, all currently measured in constant 1970 prices. Crops account for about two-thirds of GVAO and grains alone account for at least half.

<sup>4</sup> Procurement prices for the following commodities increased in 1980: cotton, jute and ambary hemp, tung oil, sheep and goats, raw lacquer, and timber. For a list of commodities that had price increases in 1979, see *Agricultural Situation, Review of 1979 and Outlook for 1980: People's Republic of China*, pp. 4 and 47.



## Grain Production Down

Grain production dropped in 1980, following 2 years of record harvests. The State Statistical Bureau estimate of 318.2 million tons is 4.2 percent below the 1979 record of 332 million tons.<sup>5</sup> Despite this drop, the 1980 grain crop was the second best on record, 4 percent above the 1978 crop and 12 percent over that of 1977 (table 3).

While the decline in production was only 4.2 percent nationwide, some provinces and regions suffered severe setbacks. Drought reduced crops in Hebei by as much as 25 percent, while production in Hubei fell by a reported 17 percent because of extended rainy weather and subsequent flooding. Crop damage was particularly heavy in several prefectures of these provinces, prompting China's first request to the U. N. Disaster Relief Organization for emergency aid. After visiting the affected areas in early 1981, a U.N. team recommended substantial relief donations.

While problems in these two major provinces received the greatest attention, shortfalls in the summer harvest (primarily wheat) were responsible for substantial declines in grain production in other areas in the North and Northwest regions as well (table 4). Although provincial data are incomplete, output apparently dropped by 15 to 25 percent in Shanxi, Shaanxi, and Nei Monggol. The overall decline in production for the North and Northwest regions, which combined to produce about 30 percent of the national grain outturn in 1979, may have approached 10 percent in 1980.<sup>6</sup>

Production was also off but by lesser amounts in the Central and East regions—perhaps by 5 to 7 percent for the two regions combined. The only regions where production rose during 1980 were the South and Southwest; however, scattered increases were also reported in provinces in other regions. In all, production was up in only 12 of China's 29 provinces. Lower area was responsible for at least one-fourth of the decline in grain production.<sup>7</sup> Specific acreage targets for grain crops were dropped in at least some provinces as emphasis shifted to more reliance on total production and procurement targets. This contributed to the drop in grain area, because production units responded by shifting to more profitable crops and to less intensive cropping patterns. For example, some of

the growth of rapeseed area was because of shifts out of winter wheat. Also the area of double cropped rice continued to decline.

A final development with a potentially important impact on the location and level of grain production was the expansion of private plots and an apparent increase in the area and production of grain on private plots. In some areas, e.g., Sichuan province, land was turned over to households for, among other things, growing fodder for private livestock. This has potentially important implications for both the livestock sector and grain production. It also creates new problems for accurate assessment of grain area and production by the central Government and introduces a new source of potential inaccuracy in preliminary grain statistics.

## Wheat Production Down Substantially

Wheat production in 1980 fell by 13.7 percent to 54.2 million tons (table 3). Most of the decline was because of lower yields, even though area was also down by about 2 percent for the year. Production of winter wheat, which accounts for over 85 percent of total wheat production, was off substantially. The 1980 summer harvest, of which wheat is the largest component, was initially reported down by more than 10 percent.<sup>8</sup> However, the actual drop was considerably more than 10 percent. Declines in the summer harvest over some parts of the main winter wheat area of northern China—e.g. Hebei, Shaanxi, Beijing, and Tianjin—approached 40 percent.

The drop in winter wheat production reflected lower area and yields. Yields were off because of very dry weather during fall 1979 and continuing problems with hot and dry weather late in the growing season. Fall weather problems forced unusually large replantings and some abandonment.<sup>9</sup> The weather also contributed to some reduction of sown area in northern China, and adjustments in cropping patterns brought fairly widespread, although small, declines in sown area in other regions.

The lower winter wheat outturn was partially offset by expanded production of spring wheat. Area increased by nearly 10 percent in Heilongjiang (the largest producing province), which had a 12-percent rise in output.

<sup>5</sup> In China's reporting, grain includes wheat, rice, coarse grains, other miscellaneous grains, pulses, tubers (converted to a grain equivalent weight using a 5:1 conversion ratio), and soybeans. Grains as defined by USDA include only wheat, rice, and coarse grains. These three categories accounted for an average of 87 percent of reported China's total grain production between 1977 and 1979 (table 3).

<sup>6</sup> The provinces included in these regions are listed on p. v. The data used here and reported in table 4 are based on preliminary and incomplete information. Final provincial figures will be somewhat above preliminary estimates if the patterns of the past 2 years hold for 1980 as well.

<sup>7</sup> This is based on the USDA estimates and definition of grains (table 3). If preliminary reports of a decline of over 3.3 million hectares in grain area in 1980 are correct, then acreage reductions contributed about 50 percent to the drop in output.

<sup>8</sup> The summer harvest consists primarily of winter wheat but is also reported to include spring wheat in some provinces, barley, naked barley, peas and broad beans. Some spring-planted early maturing coarse grain crops are also likely included, as is some tuber production from southern China. Summer grains accounted for about 20 percent of reported 1979 total grain production.

<sup>9</sup> China's grain acreage is usually reported on a sown area basis. Very little data on harvested area are available. The gap between sown and harvested area is normally quite small, and the USDA grain area estimates for China show sown rather than harvested area. Therefore unusual levels of abandonment, are reflected in yield rather than area figures.



## Rice Production Falls

National rice production in 1980 fell 4.7 million tons (3.1 percent), dropping to 139.3 million tons. Reduced area and yield both contributed to the decline. Nevertheless, the year's rice crop was the second best in history—1.7 percent above the 1978 crop (table 3). The past several years' trend away from double cropping continued. Looser controls over production teams permitted the return to more traditional cropping patterns where climate, irrigation, and supplies of fertilizer and labor make double cropping inappropriate. These shifts have occurred in virtually all rice growing provinces of central and southern China, and the cumulative effect was largely responsible for a decline of nearly 8 percent in national rice area since 1976.

The area of early rice fell by approximately 2 percent in 1980. Yields throughout central China were down, but higher yields in the south likely prevented the national yield from falling substantially and production was off only moderately.<sup>10</sup>

Intermediate rice area was up in most regions. Sichuan, China's largest grain producing province, expanded area by nearly 8 percent for the year.<sup>11</sup> Much more modest increases occurred in other areas. Intermediate rice yields probably were marginally above those of 1979 and production was up by several million tons for the year.

Overall, late rice area was down. Double-cropped late rice area fell by over 3 percent, because a late harvest of early rice and weather problems prevented the full crop from being transplanted in parts of the Central and East regions. Weather and localized flooding had a severe impact on yields of double-cropped late rice in these regions. Area of single-cropped late rice rose somewhat, because hybrid rice area increased slightly and rice acreage expanded in some areas, e.g., the Northeast. Although output rose in southern China and weather for late rice improved as the fall progressed, national late rice production was probably down by over 5 percent for the year.

The growth of hybrid rice area continued to slow in 1980 (figures in million hectares):

1976	0.14
1977	2.18
1978	4.33
1979	5.00
1980	5.20

<sup>10</sup> The rice crop can be broken down into early (largely double crop), intermediate (a single crop), and late rice (both single and double crop). No complete statistical breakdown is available, but double cropped area amounts to over 11 million hectares. Early rice likely accounts for about one-third of national rice production.

<sup>11</sup> The increase in Sichuan is partly a recovery from 1979, when the full rice crop could not be planted.

Nevertheless, increased hybrid area made an important contribution to the 12-percent expansion of rice production between 1976 and 1980.

## Coarse Grain Production Lower

Coarse grain production in 1980 dropped slightly because of lower area. Output is estimated at 82.5 million tons, 500,000 tons below that of 1979. Marginal areas of northern China likely had the largest decline in area as land was returned to nonfield-crop uses. Shifts to cash crops also contributed to the drop. The largest known decline happened in Heilongjiang, where the area of fall-harvested grains was down by nearly 7 percent. Much of this decline was in coarse grains, because acreage shifted to spring wheat, sunflower, sugarbeets, and, to a lesser extent, rice. Smaller drops occurred in other provinces.

Along with lower overall area, the mix of coarse grains shifted somewhat. Corn area likely showed the greatest reduction, as production teams took advantage of reduced controls to maintain sorghum and millet area. Acreage of these crops has dropped sharply in past years, in part because of higher yields from hybrid corn and central government pressures to expand corn area.<sup>12</sup>

## Grain Supplies Tight, Imports Rise

China's grain imports are up sharply in 1980/81, rising 36 percent to an estimated 14.7 million tons (all grains). This is about 70 percent above 1977/78, the year in which China's new economic policies began to emerge (tables 16 and 17). Long term grain agreements that are now in place with all major supplying countries indicate that grain imports ranging from 12 to 16 million tons are planned for the next several years (table 18).

China's imports of grain are mainly related to supplies in the hands of the central Government and domestic demand pressures on these supplies. Over the past several years, the gap between demand and available supplies has increased, and the relaxation of constraints on grain imports has been important in filling this gap. In fact, this relaxation has been an essential part of China's policies for raising supplies of basic foodstuffs while easing pressures in the rural areas.

Central government supplies of grain from domestic sources have risen very little in the past 3 years. The largest source of these supplies is government purchases from the rural areas. An agricultural tax-in-kind also provides some grain.<sup>13</sup> Despite higher grain prices paid to farmers and an increase of nearly 50 million tons in national production between 1977 and 1979, grain purchases over this period were reported to have risen by only 8 million tons.<sup>14</sup> Procurements during the 1980/81 procurement year (April/March) were reportedly down about 4 million tons from the preceding year. So, government supplies generated from domestic sources are now

<sup>12</sup> Hybrid corn area in 1980 was 14.3 million hectares, 4.7 percent greater than in 1979. This is about two-thirds of the national corn area.



probably only slightly higher than those of 3 years ago. At most, 20 percent of production is now entering government marketing channels.

While domestically generated supplies of grain in the hands of the Government have increased very little, demands on these supplies have continued to climb. Government grain supplies are used primarily to support urban/industrial areas and for resale to grain-deficit rural areas. The requirements of the urban/industrial sector have risen with higher incomes, more livestock production in suburban areas, and the easing of past policies to force surplus population, particularly youths, to move to the countryside.

Rural requirements were also up. Efforts to encourage regional specialization and shifting acreage to cash crops has required that more grain be transferred to these areas. Finally, in 1980/81, an uneven pattern of provincial output and serious localized crop failures increased requirements for government relief and resale to rural areas. The resultant growing demand gap for government grain has been the driving force behind the rise in imports.

Virtually all of the import growth over the past 3 years has come from wheat, which accounts for over 90 percent of total imports during 1980/81 (table 16). It is apparent that most of China's grain imports are for food rather than feed. Modification of livestock policies to de-emphasize large, feed-intensive operations and the small share of corn in long term grain agreements indicate that China is now attempting to avoid any significant reliance on imported feedstuffs, at least for the next several years. The corn now being imported is primarily for human consumption. (Frederic M. Surls and Francis C. Tuan)

## Oilseeds Rise

### Production Increases for 3 Consecutive Years

Production of oilseeds in China in 1980 rose significantly for the third consecutive year. The total production of all the oilseeds listed in table 5 increased 15.3 percent, reaching 21.1 million tons.<sup>15</sup> By the PRC definition, 1980 production of oilseeds—excluding soybeans and

cottonseed—reached 7.69 million tons, a 19.5-percent increase over the 6.435 million tons in 1979. The more modest 15.3-percent growth of the comprehensive total—including soybeans and cottonseed—is a result of continued slow growth in soybean production.

The area of every oilseed is estimated to have expanded somewhat in 1980. Sunflowerseed area showed the greatest growth, but significant expansion of peanut and rapeseed area occurred as well. Diversification policies and incentive measures are largely responsible for larger oilseed area.

The most spectacular increases for 1980 occurred in sunflowerseed—both its area, 867,000 hectares, and its production, 900,000 tons were more than double 1979. This considerable expansion reflects previous successful experiments with the crop and a decision to popularize it as a source of edible oil in the Northeast and Northwest regions, where other edible oilseeds are less prevalent.

Production of soybeans, cottonseed, peanuts, linseed, and castorbeans responded positively to incentive measures and generally good fall weather in 1980. Soybean output rose to 7.88 million tons, 5.6 percent above a year earlier's 7.46 million tons. Cottonseed production increased about 1.1 million tons from an estimated 4.4 million tons in 1979. The peanut crop reached 3.6 million tons, almost 800,000 tons over 1979. Production of other oilseeds also climbed.

China initially expected greater output of rapeseed and sesameseed from expanded area; however, they lagged behind other oilseeds in 1980. Rapeseed production dropped to 2.38 million tons, 0.7 percent under 1979, because of an estimated 10-percent decrease in winter rapeseed yields. Rapeseed, which is about 90 percent a winter crop, suffered from the same poor weather that reduced winter wheat yields. Sesameseed production fell substantially, down 38 percent, because of weather problems that plagued Hubei and other major producing provinces in the East and Central regions.

Gradual development of the nonfield-crop oilseeds also continued in 1980. The expanded planting of oil-bearing trees, begun 3 years ago, should begin to raise production of oil-bearing tree seeds in the next few years. The trees reach maturity in 3 to 7 years.

Sichuan Province, the major tung oil producer, reported a record 210,000 tons in 1980. As a result, national tung oil production must also have risen. Before 1980, national tung oil output was only around 100 to 200,000 tons annually.

### China Continues Net Imports Of Oilseeds and Oils

China remained a net importer of oilseeds in 1980. Soybean imports in 1980/81 (September-August) remained high, about 500,000 tons, but will be nearly 40 percent less than the 810,000 tons of 1979/80 (table 20). Imports of the other oilseeds continue to be negligible (table 19).

Despite China's net oilseed import position, exports of peanuts and sunflowerseeds in 1980 and 1981 were up substantially and are expected to continue at high levels. China also maintained its food-use soybean exports to Japan and other Asian markets. Soybean exports for

<sup>13</sup> Government procurements (purchases) consist of quota deliveries (sales of a fixed amount based on historical production levels at a state-determined base price), above-quota deliveries (an additional compulsory quota negotiated annually, carrying a premium price that is now 50 percent above the quota price), and negotiated purchases (sales at a negotiated price, permitted only after both quota and above-quota deliveries have been completed). Negotiated purchases amounted to 10 percent of 1979/80 procurements. The agricultural tax now amounts to less than 5 percent of production.

<sup>14</sup> A 6.5-million-ton increase in procurements was also reported. The smaller figure may be in processed weight.

<sup>15</sup> The 21.1-million-ton total differs from that published by USDA in its monthly World Crop Production report. The USDA total of 20.6 million tons includes only soybeans, cottonseed, peanuts, rapeseed, and sunflowerseed.



1980/81 are expected to rise slightly to around 200,000 tons, compared to the previous years 190,000 tons.

Despite 3 consecutive years of improved oilseed harvests, oil supplies continue to be tight. China will continue to be a net oil importer, with imports of oils such as palm, coconut, and linseed continuing 1980's gradual upward movement to meet growing domestic needs.

China is presently a net exporter of oil cakes, oil meals, and oilseed residues. It both exports and imports small amounts of these products.

### **Growth in Oil and Meal Supplies Continuing**

For 1980/81, China's total available supply of oils from domestic production and net imports is estimated to be just over 3 million tons, about 16 percent over the roughly 2.6 million tons in 1979/80. This rate of growth is similar to the previous 2 years—15 percent in 1979/80 and 13 percent in 1978/79. On a per capita basis available oil supplies will rise from about 2.57 kilograms in 1979/80 to about 2.94 kilograms in 1980/81—an improved but still low level of supply.

At about 7.4 million tons in 1980/81, available supplies of meal show the same pattern as oil. The estimated 11-percent growth rate in 1980/81 follows 11-percent increases for each of the previous 2 years. For now, China apparently will continue to rely solely on domestically produced supplies of meal to meet its needs. (Carolyn L. Whitton)

### **Record Cotton Crop**

Last year farmers picked a record cotton crop of 2.707 million tons, giving China its third consecutive year in which output increased. Cotton production exceeded the previous record (2.550 million tons set in 1973) by 127,000 tons and rose 500,000 tons from 1979's 2.207 million (table 6). Area increased by an estimated 6.7 percent, or 300,000 hectares, rising from 4.5 million hectares in 1979 to 4.8 million in 1980. Yields also increased 14.9 percent from 491 kgs a hectare in 1979 to 564 last year. Production climbed 22.7 percent over 1979. However, despite larger production over the past 3 years, fiber demand has exceeded domestic supplies. So cotton imports have remained high during these years.

Northern China's growing areas produced an outstanding crop in 1980 (see table 8 for details on provincial area and production estimates). Area sown to cotton in the north increased by an estimated 13.8 percent over 1979. Yields in this area increased by 82 percent from 308 kgs a hectare in 1979 to 559 last year. Evidently, production teams growing cotton did not simply allocate more land, but instead switched the cotton area from relatively poor fields to much more fertile lands. A portion of the increase in yields can also be attributed to the expanded planting of high-yielding varieties, such as Lu mian No. 1, and increased use of chemical fertilizers. Production team leaders were aided in their decision to increase outturn by the higher cotton procurement price and government incentive programs that guaranteed the

all-important food grain rations to teams producing cotton.

Growing areas in the East and Central regions suffered reduced cotton yields in 1980. Area sown to cotton rose by 4.1 percent, but cloudy, rainy weather early in the growing season and flooding along the Yangtze River lowered yields from 682 kgs a hectare in 1979 to 530 last year—a decrease of 22.3 percent. For example, Jiangsu and Hubei provinces accounted for about 45 percent of the previous year's crop, but Jiangsu's output fell from 532,000 tons in 1979 to 316,000 tons in 1980. Likewise, Hubei's production dropped from 450,000 tons to 318,000 tons. The reduced outturn from these areas, however, was more than offset by the large increase in northern China's output, netting a record crop for the country as a whole.

The demand for fibers in China rose substantially because of higher textile production for both export and domestic consumption. The output value of China's textile industry in 1980 increased 23 percent over 1979. Cotton yarns totaled 2,930,000 tons, 11.4 percent above 1979 and 5.6 percent above the 1980 planned target of 2,775,000 tons. Meanwhile cotton cloth output rose 10.9 percent over 1979 (table 7). Blends and synthetic fabrics are now in great demand in both urban and rural areas, and production was up substantially in 1980. Silk and woolen textile production also rose.

There was strong import demand for fiber in 1980 because of the relatively slow growth in domestic cotton production in 1978 and 1979 and the chemical industry's limited capacity to produce synthetic fibers. Import demand was also spurred by the diversion of domestic cotton to small local mills, leaving the larger plants short of raw materials. China took a record 849,000 tons of raw cotton in marketing year 1979/80, a 77 percent rise over the 479,000 tons imported in 1978/79 (table 21). China purchased 494,000 tons of U.S. cotton in 1979/80, 250 percent above a year earlier.

China's textile industry is expected to grow more slowly this year than it has in the past few years. Whereas the total value of output increased 23 percent in 1980, China's leaders in February estimated the 1981 growth rate at around 8 percent. A large portion of textile growth will come from the increased production and use of higher value chemical fibers to meet domestic and foreign demand for blends and synthetic fabrics. In addition to provincial government investments in the textile industry, the national Government invested 1 billion yuan in each of the last 2 years. About 70 percent of these funds was allocated to building up the country's chemical fiber industry. Synthetic fiber plants are being constructed in Shanghai, Liaoyang, Sichuan, and Tianjin. When the output of these new plants is added to the existing capacity in the next few years, China's total chemical fiber production will double and triple 1980's 450,000 tons.

Despite the uncertainties in China's cotton textile industry, demand for raw cotton continues high in 1981. Rural and urban purchasing power increased 34 percent from 1978 to 1980. Also, while textile sales in urban and rural markets accounted for 20 percent of total retail sales in 1976, the percentage of textile to total retail



sales rose to 25.6 percent last year. Consumers want new styles, more colorful clothing, and cotton blends and synthetic fabrics. Brisk textile sales not only soak up rural purchasing power, but they also meet the genuine need of China's consumers to have something more than blue trousers and coats. In part, these factors at least help to explain why China will import an estimated 697,000 tons of cotton in marketing year 1980/81. (Frederick W. Crook)

## Large Increase in Sugar Crops

China reported that its 1980 total sugar crop rose 18 percent over a year earlier, 1979, reaching 29.1 million tons. Much of the increase resulted from the large expansion of sugar beet area.

According to PRC reports, total sugar production reached 2.57 million tons in 1980. State Statistical Bureau (SSB) data for the production of sugar crops and sugar during 1977-80 are as follows:

Based on the data, USDA estimates China's 1980/81 (September-August) sugar production at 2.9 million tons (raw value), about a tenth over the previous year.

Sugar beet production climbed 103 percent in 1980, accounting for the majority of the increase in the total sugar crop. Sugar beets were one of the crops that showed dramatic response to the Government's 1980 incentive measures. Beet area reached an estimated 480,000 hectares, 45 percent above the previous year. Yields also increased by an estimated 40 percent.

According to PRC reports sugarcane production achieved much less growth than beets, increasing by only 6 percent in 1980. Cane area is estimated to be 500,000 hectares, about 15,000 hectares less than 1979. Yields were up in most places.

Sugar imports continued high during 1980, reaching an estimated 977,000 tons, roughly the same as in 1979 (table 22). The imports, coupled with last year's (1979/80) jump in domestic sugar production, may have raised China's 1980 sugar consumption somewhat over that of 1979. China's usually limited sugar exports also are estimated to have climbed slightly as a result of the larger domestic supply.

In 1980, China and Australia signed a 3-year sugar trade agreement. It calls for annual PRC imports of approximately 250,000 tons of Australian raw sugar during 1981-83. Agreements such as this are aimed at stabilizing China's import supplies, and they suggest that China intends to continue receiving substantial sugar shipments for the next several years, despite improved domestic supplies. (Carolyn L. Whitton)

## Mixed Results for Other Agricultural Products

Tobacco production declined from 1978's estimated 1 million tons to 750,000 tons in 1979; it fell to 700,000 tons in 1980 (table 9). The sharp decline in tobacco production apparently came as a result of the Government's anti-smoking campaign that was launched a few years ago. The cut in production however, seems not to have been related to a drop in demand, because consumers in rural and urban areas still strongly want cigarettes. Rather, the Government appears to have lowered output through its control of planning mechanisms—reducing the sown area and material incentives to farm units growing tobacco.

Last year, tea production climbed again, rising 9.7 percent over 1979 to achieve a record 304,000 tons. All major producing provinces reported larger output. The record should be good news for the world's tea drinkers, because China will place some of its crop on the world market in 1981.

Silk cocoon production reached a record 326,000 tons in 1980, up 20.3 percent from 1979. Output of aquatic products increased slightly over 1979, largely as a result of a bigger outturn of the freshwater catch. The growth rate in the saltwater catch was deliberately held down to protect China's offshore resources. Fruits and vegetable production declined somewhat in 1980, but rubber output rose to 100,000 tons. (Frederick W. Crook)

## Livestock Sector Grows Moderately

In 1980, the development of China's livestock industry was hampered, because the drought in pastoral areas reduced forage crops; dry weather and flooding reduced feed grains in intensively cultivated areas; and a shortage of cold storage capacity limited hog sales. However, as a result of the relaxation of policies and readjustments in prices of various kinds of meat in 1979, increases occurred in both the slaughter rate and the meat supply.

### Few Changes in the Livestock Program

China's livestock programs received much less modification in 1980 as in 1979. The most notable change was that China added a new economic indicator, total meat production, for livestock sector planning and reporting. Previously the sole indicator was yearend animal numbers. The new indicator suggests that China's leaders are now more conscious of the economic aspects of livestock enterprises, which is in line with the goal of steadily raising meat consumption while maintaining a relatively stable number of livestock, particularly hogs. These changes brought about a higher slaughter rate of pigs and more pork supplies in 1980.

Raising of ruminant-type livestock—cattle, sheep, and goats—was encouraged. Arguments still exist regarding what areas—pastoral, mixed pastoral-agricultural, or agricultural—are more suitable for production activities.

Year	Sugarcane	Sugar beets	Total sugar crop	Sugar
1,000 tons				
1977	17,753	2,456	20,209	1,816
1978	21,117	2,702	23,819	2,267
1979	21,508	3,106	24,614	2,500
1980	22,807	6,305	29,112	2,570



To improve animal breeds, China set up the Chinese National Animal Breeding Stock Import and Export Corporation to take responsibility for importing and exporting breeding stock. Established in June 1980, the corporation is concerned with items such as cattle, sheep, goats, swine, horses, donkeys, camels, rabbits, poultry, bees, dogs, and seeds for all kinds of forage crops. With this action, China has demonstrated its intent to not only increase quantity but also improve the quality of livestock and livestock products.

Family feeding of livestock has been encouraged. An expansion of family feeding on a contract or noncontract basis will be seen for the next few years, especially for poultry, rabbits, sheep and goats, cattle, and hogs. In the Beijing area, a recent report indicated that a new contract system has been developed and is being carried out by some large state-owned chicken farms. For instance, Red Star State Chicken Farm provides households in neighboring communes with layers, feed, and necessary equipment; commune families only supply labor. The poultry industry being developed in this manner is considered not only an aid to raising family incomes but also a way of accelerating the adoption of scientific methods for feeding poultry throughout China's vast countryside. Another example reported in Sichuan Province also implies a possibly faster pace of family feeding in the coming years. Households that need more fodder to expand livestock production may increase the size of private plots to grow the required feed.

### Meat Consumption Steadily Increases

Per capita meat consumption, including pork, beef, and lamb, increased to about 12 kilograms in 1980, nearly 2 kilograms more than the previous year. The per capita annual meat consumption series, constructed by using news releases from China (weight in kilograms), is as follows:<sup>16</sup>

1959	2.98
1960	1.53
1961	1.41
1976	7.01
1977	7.50
1978	8.00
1979	10.00
1980	12.00

The increased per capita meat consumption of the last couple years indicates that China has recently done a better job in the development of the livestock sector than it did in the mid-70's. With the decrease in hog numbers and the rise in pork production in 1980, China has prob-

ably made progress in raising the slaughter rate. Major contributing factors were: (1) record grain harvests in the previous 2 years, (2) the raising of the procurement price for pork set in 1979, and (3) the relatively large hog inventory built up in preceding years.

Although it was reported that poultry production has increased, the exact quantity of poultry consumption in China remains unknown. For the last 2 or 3 years, total annual grain production used for livestock feed reportedly ranges from 7 to 11 percent of all grain output. Production of compound feed reached over 1 million tons, double 1979. Most of this production is located in and around the major urban centers. Animal feed production in China is a newly developed industry, which is designed to improve feeding efficiency, increase slaughter rates, and make up for the insufficiency of grain.

### Hog Procurement Up; Yearend Number Declines

The number of live pigs in sties at the end of 1980 decreased by 4.5 percent from 1979 to a total of 305.43 million head. The Government's total live hog purchases increased in that same period, and hog sales were up as well. Average weight per pig for the first 10 months in 1980 rose 6.5 kilograms over last year; the carcass weight also increased by 2.9 kilograms per hog.

Before September 1980, several provinces reported that cold storage facilities were filled to capacity. Thus, they had to curtail hog procurement. Lower retail pork prices in some provinces, such as Shandong, Zhejiang, and Sichuan, were reported to stimulate higher pork consumption. Price differentials between purchases and sales of pork were subsidized from national and provincial budgets. Consequently, a decline in the number of sows in some rural areas was detected during the last few months in 1980. The problem apparently became a serious concern during the beginning months of this year. The Ministries of Agriculture, Commerce, and Food jointly submitted an urgent report to the State Council in March 1981, suggesting continuous efforts are needed to stabilize hog raising. These efforts include subsidizing needed fodder, properly developing the number of sows, stabilizing sales and marketing of pork in all areas after fulfilling the pork export quotas or targets, and carrying out procurement tasks through contracting measures.

### Sheep and Goat Numbers Rise Again

For 1980, sheep and goat numbers increased about 2.3 percent (table 10). Government procurement of sheep and goats is also estimated to be up. In addition, statistics show that production of sheep hides and goat skins increased by a rather large margin in the first half of the year.

The raising of milk goats received considerable attention, because goat milk has the potential to make a major contribution to dairy product output.

### Large Animal Numbers Up

Large animal numbers were up again in 1980, for the third consecutive year. Before 1977, large animal

<sup>16</sup> The 1979 and 1980 figures are roughly estimated by the total meat production and the population in China, as given by the State Statistical Bureau, along with the consideration of Chinese meat exports.



numbers were on a downward trend. Because most of the large animals raised in China are used mainly for draft purposes, the increase is probably related to efforts to promote ruminant-type animal production in pastoral areas and delays in China's agricultural mechanization programs.

### Other Livestock and Livestock Products Generally Increase

In 1980, China disclosed for the first time since the Cultural Revolution that the total number of live poultry in the country was more than 800 million. The most recent egg consumption figure available for China is 2.1 kilograms a person each year. Although the year was not specified, the figure is most likely for 1979, because the item was not disclosed until mid-year 1980. Government egg procurement is again estimated up for 1980. Changing from past practice, China did not distribute egg purchasing coupons for a good portion of the year in most

provinces, which suggests a relatively abundant supply of eggs.

Annual milk consumption in China was low, only 1.1 kilograms a person. Fresh milk production reportedly increased to 1.141 million tons after stagnating between 850,000 and 900,000 tons for some years. For 1980, the procurement of fresh milk increased 42 percent during January-May. However, there was a problem with milk storage in some areas. For example, in Heilongjiang Province, over 100 tons of fresh milk soured in May and June because of the lack of storage and processing equipment.

Rabbit raising was promoted vigorously, and production was up in the first 10 months of 1980. Rabbit meat is exported primarily to European countries. Also, China turns out 90 percent of the world's supply of Angora rabbit hair. A long term development plan has been formulated for the 7 major provinces that produce rabbit hair—Shandong, Zhejiang, Henan, Jiangsu, Anhui, Guangxi, and suburban areas of Shanghai. (Francis C. Tuan)

## AGRICULTURAL INPUTS

### Chemical Fertilizer Production Up

The growth of chemical fertilizer production slowed somewhat in 1980. But, production for the year was up 15.6 percent, reaching 12.32 million tons (nutrient weight). Higher production, together with continued large imports, boosted consumption 17 percent. Organic fertilizers still provide a substantial share of nutrients. However, growing chemical fertilizer application has been the single most important reason for rising grain production in recent years. Use per hectare of cultivated area has grown as follows (nutrient weight in kilograms):

1977	64
1978	89
1979	109
1980	127.8

The 1979 pattern of slowing growth in nitrogenous fertilizers and a fairly rapid expansion of phosphate fertilizers continued in 1980 (table 11). Two factors contributed to a slowdown in production of nitrogenous fertilizers. Construction of the 13 imported synthetic ammonia-urea complexes, contracted for in 1973 and 1974, is now complete; output gains from these plants are slowing as they reach design capacity. In addition, China's efforts to rationalize small-scale rural industry appear to have had a significant impact on the small-scale fertilizer plants, which produced over half of nitrogenous fertilizer as recently as 1979. Scattered reports indicate large numbers of small plant closures, with over half being shut down or merged in some provinces. The axe has most likely fallen heavily on those plants that are particularly inefficient users of energy or that do not have raw materials available locally.

The growth of China's fertilizer production in coming years will continue to be below the yearly average growth rate of 27 percent that was registered during 1976-79. Major emphasis will be on more efficient fertilizer use and shifting the mix of production away from the current dominance of nitrogen in nutrient composition. Limited availability of phosphate and potassium supplies is now reportedly limiting the response to greater nitrogen use in some regions. Further development of domestic phosphate supplies will be pushed, and a large potash operation is planned for Qinghai. China's earlier plan for a large nitrogen fertilizer plant in each province by 1985 has apparently been shelved. However, at least one large plant incorporating Chinese rather than imported urea equipment is now under construction. (Frederic M. Surlis)

### Optimal Use of Land and Water Resources Emphasized

During the 1979/80 season, China began stressing maximizing returns in the development of water facilities and the use of land.<sup>17</sup> A number of resource surveys were taken; problem areas were identified; and legislation was suggested for several problems, including water and soil conservation, water resource management, and land use. Four critical issues were identified for immediate action: 1) optimizing use and efficiency of existing local water facilities, 2) stopping the decline of cultivated land, 3) building the "Great Green Wall," a forest shelter belt across the entire width of north China, and 4) developing hydroelectric power.

<sup>17</sup> The season for development of land and water facilities extends from fall harvest in October through the following September.



National conferences in July and September made it clear that localities would not receive any increase in central government investment funds in 1979/80. Also, localities were to implement only those projects that produced the greatest benefits, could be built the quickest at the least cost, and could be financed from local sources or previously allocated government funds. Projects were to proceed from scientific surveys of actual local conditions, taking all related sectors into account. Duplication in planning and end use was to be avoided. All projects, whether for new construction or for strengthening existing facilities, were to be implemented to the fullest extent by using all possible auxiliary equipment and improving management efficiency. The top priorities that were identified in 1979/80 included irrigation, power generation, fish, forest, and tourism.

During the year, a serious loss of high-quality cultivated land also was identified. China's cultivated area declined from 112 million hectares in 1957 to 99 million in 1977 (table 12). During these 20 years, the actual loss of cultivated area to urbanization and nonagricultural use reportedly was 33 million hectares of high-quality, largely urban, fertile land that was used to grow vegetables. Reclamation of 21 million hectares of wasteland in border areas only partially offset this loss, and the quality of reclaimed land was not as good as that of the fertile land lost to urbanization. Legislation was proposed as one solution for this problem, and the drafting of a land use law reportedly began in December 1980. Suggested provisions include: 1) a graduated tax on requisitioning land for nonagricultural use, falling heaviest on removal of urban vegetable land, 2) tax exemptions for developing barren land, 3) agricultural zoning, and 4) tighter government control over commune and brigade removal of land from agricultural use. It is not yet known which, if any, of these provisions might actually be included in the final law.

Progress on the first stage of afforestation for the "Great Green Wall"—5.3 million hectares by 1985—proceeded as planned. In the last 2 years, 1.67 million hectares of shelter belts have been planted in northern China, a planting rate roughly consistent with the annual average called for in the first stage. Also, in 1980, 4 million hectares of forest were planted, and 5.3 million were reserved for future afforestation. But, it is not clear how much of the area afforested in a given year is expected to survive; survival rates of air-seeded forests are reportedly only about 40 percent.

One of China's current long-range goals is the development of hydroelectric power as an energy source—an important goal in the success of its current modernization program. Hydroelectric power development is currently receiving the largest share of central government investment funds that are targeted for land and water development. The major project, construction of the Gezhouba Station on the Changjiang (Yangtze) River, appears to be proceeding on schedule. Local government units also have been asked to participate in hydroelectric power development. During 1980, they added more than 4,000 small hydropower stations, raising the total number of small-sized stations over 90,000 (table 14).

In 1980/81, the emphasis on optimal use of existing local facilities and the development of hydropower and northern forest shelter belts is expected to continue. The land law may be enacted, and work may also be undertaken on solutions to some of the other water development problems for which legislation was proposed in 1979/80. (Carolyn L. Whitton)

## Agricultural Mechanization Goal Changed

In the mid-1950's China's leaders announced the goal of completing basic mechanization of the agricultural sector by 1980. But, last year, a new set of leaders admitted the goal was unrealistic and could not be reached. Moreover, the State Council changed the course of mechanization policy by deciding in mid-1980 to concentrate China's farm mechanization program in the Northeast. The Region is considered more suitable for the mechanization program because of its vast area and relatively sparse population. Leaders believe that this region, which still has some reclaimable land, has the greatest potential to increase commercial grain production. Current statistics as reported by the PRC indicate that the total horsepower of agricultural machinery in the region's three provinces accounts for one-tenth of the national total—17.8 percent of the national total for large and medium-sized tractors and 51.9 percent for combines. Area plowed by machines in the Northeast has reached 56.6 percent of total crop area, one-third higher than the national average. The area sown by farm machines is 33.4 percent, also almost one-third higher than the national average; machine-harvested area is 11.5 percent, sharply contrasting to the 2.6 percent national average.

The pace of agricultural mechanization in the Northeast increased after the State Council's decision to concentrate on that region. For example, in Heilongjiang the number of production brigades that have basically mechanized farming operations increased from 37 in 1979 to 742 in 1980 and soared to 2,107 at the end of March 1981. The latter figure accounts for one-sixth of the total number of brigades in the province.

Production of farm machinery declined in 1980. The total number of large and medium-sized tractors produced was down by 22.2 percent, while the output of hand-guided tractors was down 31.4 percent from 1979. The declines were partly because of the delay and modification of the agricultural mechanization program. Other factors that hampered the growth of China's agricultural machinery industry were the low quality of products and relatively high prices, especially for large and medium-sized tractors, reduced capital investment in the industry, and a smaller allocation of scarce material inputs, such as steel from the central Government. A large amount of farm machinery piled up in warehouses and could not be sold. For example, sales of large and medium-sized tractors for the first 9 months, compared with that of the same period a year earlier, were down 32 percent; sales of machine-drawn plows and harrows were off by 40 percent.



During 1980, much research on farm machinery was undertaken by various levels of government. Basic production units have suggested that more research be done to improve small-sized farm machines. Suggestions have also been made that manufacturing techniques and qual-

ity be improved, prices for machinery be lowered, and kinds of machines produced be better geared to the realities and economic conditions in China's rural villages. (Francis C. Tuan)

## RECORD 1980 TRADE

In calendar 1980, China achieved its fourth consecutive record volume of trade; both imports and exports rose to all time highs. China's total import and export value is estimated at nearly \$40 billion, \$10.5 billion or 36 percent over 1979 (table 15). For the third consecutive year, there was a trade deficit; however, imports exceeded exports by only an estimated \$1.2 billion, one-third less than the \$1.8-billion 1979 deficit.

Exports rose by \$5.5 billion, 40 percent, to \$19.3 billion. Imports increased by 32 percent, \$4.9 billion, to reach a total of \$20.5 billion. Export growth was largely the result of expanding shipments of industrial products and higher prices for China's oil exports. Both agricultural and industrial imports grew, each retaining roughly the same portion of the import total as in 1979.

The PRC had planned to reduce the trade deficit in 1980 by expanding exports and taking a more selective approach to imports. According to China's claims, at least the export expansion goal was met.

To raise exports, the Government planned increased production of export goods and allowed individual localities greater flexibility in arranging their own exports. Reports from China indicate that textile and industrial shipments grew from 77 percent of the total in 1979 to 79 percent in 1980. Agricultural and sideline exports also rose, increasing about 15 percent in 1980 to reach the third consecutive record. But, agriculture's share in total exports declined.<sup>18</sup>

The pattern of imports in 1980 reflected China's efforts at industrial retrenchment. Imports of heavy industrial goods accounted for a smaller portion of the 1980 total. But, combined agricultural and light industrial imports accounted for a larger portion of the total than was the case in 1979.

### Agricultural Imports Grow

Total agricultural imports likely reached \$5 billion, one-third higher than the 1979 record. Higher world prices accounted for some of the increase in value. Quantities of most items, particularly wheat and cotton, also were higher. The factors that led to larger agricultural imports include: 1) poor weather and reduced grain production, 2) efforts to raise living standards and increase consumption of farm products and textiles, and

3) attempts to encourage regional crop diversification by guaranteeing availability of government-supplied grain.

Wheat imports of about 11.7 million tons reached a fourth consecutive record, 41 percent or 3.4 million tons over 1979 (table 16). Growth of wheat purchases accounted for much of the increase in agricultural imports. Calendar year cotton imports also showed a substantial increase. Corn purchases of nearly 1.8 million tons were lower by about 30 percent, nearly 1 million tons less than 1979. Soybean imports of 665,000 tons set a new record, growing 7 percent over the 1974 record and 25 percent over 1979. Imports of other economic crops and products, such as soybean oil and sugar, remained more or less the same as in 1979.

## Record U.S.-China Trade

Two-way trade with the United States increased to nearly \$5 billion in calendar 1980, raising the United States to a bilateral trading position roughly equivalent to that of Hong Kong and Europe and just behind Japan. The United States again had an export surplus in trade with China; the surplus grew to about \$2.8 billion.

In 1980, U.S. exports to China more than doubled for the second consecutive year, reaching a record \$3.8 billion (table 23). Agricultural products led the growth, increasing 128 percent over 1979, compared to an 113-percent increase for nonagricultural products. Nonagricultural exports reached a record \$1.5 billion. At almost \$2.3 billion, agricultural commodities accounted for 60 percent of total U.S. shipments to China. Except for corn, exports of all traded U.S. agricultural commodities hit new records in 1980. Tremendous growth occurred in minor export commodities, such as cattle hides, tallow, and soybean oil; however, the four major U.S. agricultural export commodities—wheat, corn, cotton, and soybeans—still accounted for 96 percent of U.S. agricultural exports to China.

China was the leading U.S. wheat market in 1980; its 6.4 million tons of imported U.S. wheat greatly exceeded the quantity the United States sent to any other country. Nearly tripling 1979, U.S. wheat shipments also resumed the position of the largest U.S. export commodity to China, accounting for 48 percent of agricultural exports.

Cotton was the second largest U.S. agricultural export to China in 1980. The quantity of U.S. cotton exports to China increased 85 percent over 1979, nearly double for the second consecutive year. Although the quantity of U.S. corn exports declined about 30 percent from the 1979 record, at nearly 1.7 million tons, it was still the

<sup>18</sup> The commodity classification system employed by China's statisticians to make the estimates is not known. Data from China's system differ slightly from USDA estimates.



second largest amount of U.S. corn ever exported to the PRC. The United States was China's sole supplier of soybeans in 1980; PRC imports of U.S. soybeans were 7 percent over the 1974 record and 61 percent over 1979. U.S. exports of agricultural input items, such as fertilizers and insecticides, also expanded in 1980. Sales of diammonium phosphate and concentrated superphosphates were up sharply.

In October 1980, a 4-year grain agreement between the United States and China was signed. Under the terms of the agreement, China will purchase 6 to 8 million tons of grain annually during 1981-1984. Of this amount, 15 to 20 percent will be corn and the balance wheat. China

may purchase an additional 1 million tons without prior notice. (The text of the agreement is included as an appendix to this report.)

U.S. imports of Chinese goods in 1980 totaled over \$1 billion, roughly 90 percent more than in 1979 (table 25). As in the past, most of the U.S. imports from China—more than \$900 million worth—were nonagricultural commodities. Last year, U.S. agricultural imports from China rose to \$133 million but accounted for only 13 percent of total U.S. imports from China, less than in 1979. As in the past, leading U.S. agricultural imports were all specialty items, such as feathers and down, mushrooms, essential oils, licorice root, tea, bristles, and honey. (Carolyn L. Whitton)

## OUTLOOK FOR 1981

The agricultural outlook for 1981 is clouded by more than the usual measure of uncertainty. This is largely because of questions about the extent and impact of agricultural adjustments now underway. China's leaders, alarmed by the reduced grain area over the past several years and last year's drop in production, have repeatedly emphasized the need to stabilize grain area and prevent any further decline. In past years, lower production has led peasants themselves to emphasize grain the following year, thereby enabling them to rebuild local stocks and restore grain rations. In addition, the central Government's concern with the decline in grain area could be expected to lead to adjustments in the mix of policies that played such an important role in stimulating cash-crop production in 1980. One particularly important area where adjustment might be expected would be the lowering of grain supplies to cash-crop regions.

Thus far, however, there has been little indication of actual shifts away from emphasis on cash crops. Wheat area is down sharply again this year; there is no clear indication that the area of fall harvested grains will be up significantly. Rapeseed area is higher, and limited provincial indications point to a further, although small, rise in cotton area. This suggests a preliminary conclusion that, despite past patterns and recent government pronouncements, the general tilt of policies in 1981 will be toward continued local autonomy, regional specialization, use of material incentives, and an expanded role for private plots. Cash-crop production should continue to grow, even though the rapid changes of the past several years will slow sharply. Policy actions taken to date seem aimed at slowing the pace of change—not fundamentally reversing the direction of policies adopted in the last several years. State investment in agriculture will be less this year than last because of budget cuts. For 1981, China's leaders hope that proper implementation of policies and agricultural science will provide the impetus for output expansion.

The overall outlook is for a modest improvement in agricultural performance in 1981, particularly if more normal weather prevails. China's GVAO will likely rise again in 1981, but the increase will fall far short of the very rapid jumps in 1978 and 1979, when GVAO grew at

an average annual rate of nearly 9 percent. China's leaders at the National People's Congress in September 1980 expected GVAO to grow only by 4 percent in 1981. Income for farm families should increase over last year, as households gear up to take advantage of the expansion in the size of private plots and seek opportunities to generate income from private sideline production activities.

Available evidence points to a further, although small, decline in grain area this year. But the recovery of yields from last year's level should raise grain production somewhat. Nevertheless, production in 1981 is likely to fall short of the target 332.5 million tons, 5 percent above 1980 and equal to the 1979 record. Gains are likely for both wheat and rice. Winter wheat area is down by about 4 percent and will be only partially offset by an expected small increase in spring wheat area. But, yields should be up as weather up till now has been considerably better than that of the comparable period in 1979/80. Rice area will at best hold at the 1980 level; return to more double cropping is unlikely. Given reasonable weather, yields should recover from those of last year. But because area is now lower, production may not reach the 1979 record. This year's outturn of coarse grains will depend heavily on sown area and weather; however any increase in production over that of last year will likely be small. Some corn area may shift toward more drought resistant millet and sorghum in marginal areas.

Higher grain production and the retrenchment in foreign trade could cause 1981/82 grain imports to drop slightly from this year's record of nearly 15 million tons (wheat and corn combined). Nevertheless, total imports should remain substantially above 1979/80 and earlier years.

Oilseed production is projected to rise in 1981; growth will be slower than in the last 3 years but still significant. Much of the increase will result from the already substantial expansion of 1981 winter rapeseed area and better rapeseed yields. Modest growth in the area of sunflowerseeds, cottonseed, and soybeans is expected to result from continued government emphasis on larger production of these crops. The area of other oilseeds may remain about the same as in 1980 because of competition from non-oilseed crops for scarce acreage. With higher



domestic production and the tightening budget, oilseed and soybean oil imports are likely to decline somewhat in 1981/82. Nevertheless, available supplies of oil and meal are projected to grow around 5 percent, a good but more modest pace than in recent years.

Cotton production could exceed the 1980 record, providing three conditions are met: 1) area is expanded; 2) normal weather patterns prevail; and 3) incentive measures used in 1980 are kept intact for the 1981 crop. The decline in 1980 grain production pushed China's leaders to restrict further growth of cotton area; preliminary provincial data indicates a 100,000 hectare increase from 4.8 million hectares last year to 4.9 in 1981. Marginal increases for sown area reported in the Central and East regions will likely offset minor decreases in northern China. Continued good weather conditions in northern China could produce yields in the range of 520 to 560 kgs a hectare—roughly equal to 1980's approximately 542 kgs a hectare. More importantly, with the return of good weather conditions to the Central and East regions, yields could range from 620 to 660 kgs per hectare, yields similar to those achieved in 1978 and 1979, respectively. Incentive measures in 1980 encouraged farmers to increase yields by selecting suitable fields for cotton production and applying fertilizers and water at critical times. Moreover, the incentive measures provided the all-important grain rations to farmers. Production teams with prime cotton land could then plant cotton on most of their land rather than having to set aside land to grow their own grain. Yields will depend in large part on the degree to which the same incentives operate in 1981. Providing area, weather, and incentives are favorable to cotton production, China's 1981 cotton crop will surpass last year's record and may range from 2.7 to 3 million tons.

Sugar-crop production in 1981 may show some growth, which will boost 1981/82 sugar output. Area sown to sugar beets in 1981 probably will only be marginally above 1980, so as not to grow more beets than can be processed effectively. Sugarcane area, however, may increase considerably, as communes in the South region respond to the Government's specialization and diversification campaign. Sugar from domestic sources still will likely fall far short of demand, and continued high sugar imports can be anticipated.

Production of pork, beef, and mutton will continue to grow in 1981, but the increase will be smaller than in past years because of less grain availability, problems of government procurement brought on by limited cold storage capacity, and reduced numbers of sows reported

in some areas. Yearend inventory numbers of livestock will generally increase, except hogs, which will likely remain about the same as last year. Partially because of the delay in China's farm mechanization program, large animals, especially draft animals, will increase. Other livestock products and production activities related to family enterprises are expected to expand in the coming years.

China's foreign trade retrenchment will mainly affect industrial imports, but 1981 agricultural imports may also come under greater scrutiny. Import restrictions are not expected to significantly limit agricultural purchases, but some caution on the part of China's leaders and 1980's improved cash-crop production, particularly cotton and oilseeds, may combine to hold 1981 agricultural imports close to last year's levels. Wheat imports will likely be up somewhat; however, they will be offset by imports of corn, cotton, and soybeans that are lower than last year.

Over the long run, China's agricultural trade policies seem aimed at holding down the growth of agricultural imports. The country has imported large amounts of grain in the past several years to permit expansion of cash-crop production, particularly that of cotton, oilseeds, and sugar. Several recent PRC reports indicate that government leaders hope that this will permit them to sharply curtail imports of these products over the next 3 to 5 years. Furthermore, looking into the more distant future, they are anticipating that policies aimed at raising the grain marketing rate will substantially expand domestically generated supplies of grain available to the central Government. This, in turn, will eventually permit the restriction of grain imports. The efforts to develop commercial grain bases and expand production on state farms are key parts of the plans. However, there are real questions about whether these plans will succeed. Nevertheless, they do indicate that China's leaders have not yet committed the country to increasing reliance on world markets for meeting key agricultural commodity requirements over the long run.

U.S. agricultural exports to China during calendar 1981 are expected to reflect the slowing growth of China's total agricultural imports. After increasing by 270 percent between 1978 and 1980, U.S. sales may level off close to last year's record of \$2.3 billion. Wheat exports will likely be somewhat above the 6.4 million tons shipped in 1980. But, shipments of the other main export items—cotton, corn, and soybeans—will probably decline somewhat.



Table 1--PRC: Schedule for basic level reporting on  
crops and livestock 1/

	<u>Deadline</u>
I. Annual Reports for Previous Year	
1. Crop sown area and production	2/28
2. Silk cocoon, tea, and fruit production	2/28
3. Semitropical crop production	2/28
4. Livestock production	2/28
II. Semiannual Reports for Current Year	
1. Livestock situation, January-June	7/15
2. Preliminary livestock annual estimates	11/30
III. Quarterly Reports for Current Year	
1. Sown area	
A. Overwintering crops	1/20
B. All spring and summer sown crops	8/31
a. Early rice, spring wheat, and cotton	5/31
2. Production	
A. Summer harvested grains and rapeseed	
a. Preliminary	6/30
b. Actual	8/10
B. Early rice	
a. Preliminary	8/10
b. Actual	9/15
C. Preliminary spring wheat and spring rapeseed	8/31
D. Preliminary annual crops	11/30

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1/ Deadlines are for submission of statistics by basic-level production units (communes, state farms, and others) to the provincial level Bureau of Statistics and the Bureau of Agriculture.

A final annual report covering most aspects of rural economic activity is completed before the end of April. This report includes final crop production figures for the year; the production figures submitted on November 30 are apparently only initial estimates. This annual report is the basis for the agricultural portion of the State Statistical Bureau's formal report on the previous year's performance.

Source: Materials presented to USDA Agricultural Planning and Statistics Team, October 1980.

Table 2--Major national agricultural commodity reports, 1980 1/

Commodity	Report	Source and notes
Total grain		
1980	:Total grain production declined 20-30 billion jin : from 1979 and was 10-20 billion jin more than : 1978's 609.5 billion jin. :316 m.t. : : :318.220 m.t. :	:The comparison with 1979 and 1978 are incon- : sistent. :RmRb, 12/27/80, p. 1. :Chairman of State Planning Commission, Yao : Yilin, speech. The number was identified : as an estimate. RmRb, 3/1/81, p. 1. :SSB, annual report <u>2/</u> . :
Summer grains <u>3/</u>		
1980	:Summer grain harvest down by over 10 percent. :	:RmRb, 8/31/80, p. 1. :
Wheat		
1980	:54.155 m.t., -13.7 percent. :	:SSB, annual report <u>2/</u> . :
Rice		
1980	:Double-crop late rice area down by 0.340 m.ha. :139.255 m.t., -3.1 percent. :	:RmRb, 9/19/80, p. 1. :SSB, annual report <u>2/</u> . :
Tubers <u>4/</u>		
1980	:27.845 m.t., -2.2 percent. :	:SSB, annual report <u>2/</u> . :
Soybeans		
1980	:7.88 m.t., +5.6 percent over 1979. :	:SSB, annual report <u>2/</u> . :
Edible oil		
1977	:1.659 m.t.	:RmRb, 5/27/81, p. 1.
1978	:2.067 m.t.	:RmRb, 5/27/81, p. 1.
1979	:2.465 m.t.	:RmRb, 5/27/81, p. 1.
1980	:2.763 m.t.	:RmRb, 5/27/81, p. 1.
1980/81	:Record oil production. :	:FB, 4/22/81, p. K-21. :
Cottonseed		
1980	:750,000 tons over 1979. :	:RmRb, 3/4/81, p. 3. :
Peanuts		
1980	:3.6 m.t., 27.6 percent over 1979. :Area increased. :	:SSB, annual report <u>2/</u> . :RmRb, 10/1/80, p. 1. :
Rapeseed		
1980	:2.384 m.t., -0.7 percent under 1979. :	:SSB, annual report <u>2/</u> . :
Sesameseed		
1980	:259,000 tons, -37.9 percent under 1979. :	:SSB, annual report <u>2/</u> . :
Sunflower		
1979	:Area of 366,667 ha.; production of 340,000 tons.	:RmRb, 9/5/80, p. 3.
1980	:Area sown 866,667 ha., a record, +493,333 ha. : over 1979. :	:JP, AG, 12/22/80, p. 17. :
Linseed oil		
Flax (Hu ma)	:Annually sown area of 666,667 ha. in North : and Northwest Regions. :	:JP, AG, 1/29/80, p. 13. 90 percent of crop : used for oil. :
Cotton		
1980	:By Feb. 1981 2.609 m.t. purchased. :Total production of 2.707 m.t., 22.7 percent : above 1979. :	:FB, 2/6/81, p. L-2. :SSB, annual report <u>2/</u> . :
Sugar beet		
1980	:Area of 330,000 ha., up 66,000 ha. :Area of more than 400,000 ha. :Production of 6.305 m.t., +103.0 percent. :	:FB, 12/5/80, p. L-14. :JP, AG, 2/3/81, p. 24. :SSB, annual report <u>2/</u> . :
Sugarcane		
1980	:Production of 22.807 m.t., +6.0 percent. :	:SSB, annual report <u>2/</u> . :

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Table 2--Major national agricultural commodity reports, 1980--continued

Commodity	Report	Source and notes
Sugar		
1980	:Production of 2.57 m.t., +16.7 percent.	:SSB, annual report <u>2/</u> .
Tobacco		
1978	:Production of 1.0 m.t.	:RmRb, 3/4/81, p. 3.
1979	:Production of .750 m.t.	
1980	:Production of .700 m.t.	
Tea		
1980	:304,000 tons, +9.7 percent.	:SSB, annual report <u>2/</u> .
Jute and ambary hemp		
1980	:1.098 m.t., +0.8 percent.	:SSB, annual report <u>2/</u> .
Silkworm cocoons		
1980	:326,000 tons, +20.3 percent.	:SSB, annual report <u>2/</u> .
Aquatic products		
1980	:4.497 m.t., +4.5 percent.	:SSB, annual report <u>2/</u> .
Fruit		
1980	:Production decreased somewhat.	:SWB, 1/7/81, p. A-10.
Rubber		
1980	:Production over 100,000 tons.	: <u>China Reconstructs</u> , No. 2, February 1981, p. 48.
Timber		
1980	:53.59 million cubic meters, -1.5 percent.	:SSB, annual report <u>2/</u> .
Hogs		
1980	:305.431 million head, -4.5 percent.	:SSB, annual report <u>2/</u> .
Large animals		
1980	:95.246 million head, +0.7 percent.	:SSB, annual report <u>2/</u> .
Sheep and goats		
1980	:187.311 million head, +2.3 percent.	:SSB, annual report <u>2/</u> .
Meat		
1980	:Production of pork, beef and mutton of : 12.055 m.t., +13.5 percent.	:SSB, annual report <u>2/</u> .
Milk		
1980	:1.141 m.t., +6.6 percent.	:SSB, annual report <u>2/</u> .
Sheep wool		
1980	:176,000 tons, +15 percent.	:SSB, annual report <u>2/</u> .

Abbreviations: m.t. refers to million metric tons.  
m.ha. refers to million hectares.  
SSB refers to the PRC's State Statistical Bureau.

1/ Commodity reports for 1977, 1978, and 1979 can be found in last year's report, Agricultural Situation; Review of 1979 and Outlook for 1980: People's Republic of China, appendix table 2.

2/ P.R.C., State Statistical Bureau, "Communique on the Fulfillment of the 1980 National Economic Plan," Beijing Xinhua in English, April 29, 1981; published in FB, 4/29/81, pp. K-7 through K-9. Text in Chinese can be found in RmRb, 4/30/81, p. 2.

3/ See page vi.

4/ Tubers converted to a grain equivalent weight using a 5:1 conversion ratio.

Table 3--Area, yield, and production of grains, 1976-80 1/

Grain	1976	1977	1978	1979	1980
<u>Million hectares</u>					
Area					
Wheat	28.4	28.0	29.2	29.4	28.9
Rice	36.2	35.6	34.4	33.8	33.4
Coarse grains	34.0	33.9	33.5	33.1	32.7
Corn	19.2	19.6	20.0	20.2	19.9
Sorghum	4.3	3.8	3.5	3.2	3.2
Millet	4.5	4.5	4.3	4.2	4.2
Barley	4.5	4.5	4.2	4.0	3.9
Oats	1.5	1.5	1.5	1.5	1.5
Others <u>2/</u>	NA	NA	23.5	22.7	NA
Total <u>3/</u>	NA	NA	120.6	119.0	NA
<u>Tons/hectare</u>					
Yield <u>4/</u>					
Wheat	1.78	1.46	1.85	2.13	1.88
Rice	3.48	3.61	3.98	4.25	4.17
Coarse grains	2.07	2.09	2.36	2.51	2.52
Corn	2.50	2.53	2.80	2.98	3.00
Sorghum	2.02	2.03	2.31	2.38	2.41
Millet	1.24	1.36	1.54	1.45	1.52
Barley	1.59	1.32	1.66	1.92	1.82
Oats	1.03	1.00	1.00	1.06	1.06
Others <u>2/</u>	NA	NA	1.47	1.88	NA
Total <u>3/</u>	NA	NA	2.53	2.79	NA
<u>Million tons</u>					
Production					
Wheat	50.5	41.0	54.0	62.7	54.2
Rice	126.0	128.5	137.0	143.7	139.3
Coarse grains	70.5	70.7	79.2	83.0	82.5
Corn	48.0	49.5	55.9	60.0	59.7
Sorghum	8.7	7.7	8.1	7.6	7.7
Millet	5.6	6.1	6.6	6.1	6.4
Barley	6.7	5.9	7.0	7.7	7.1
Oats	1.5	1.5	1.5	1.6	1.6
Others <u>2/</u>	NA	42.6	34.6	42.7	42.2
Total <u>3/</u> , <u>5/</u>	NA	282.8	304.8	332.1	318.2

NA indicates not available.

1/ New series based primarily on information obtained in the past 2 years. This series, particularly the coarse grain component, is inconsistent with the USDA historical series for years prior to 1976 (available in previous issues of this report and in various Foreign Agricultural Service Grain Circulars). No effort has been made to revise the historical series and users should be aware of the potentially misleading results obtained by combining the data presented here with the pre-1976 series.

2/ Consists of tubers (converted to a grain equivalent weight using a 5/1 conversion ratio), soybeans, pulses, and other miscellaneous grains. All of these items are included in the PRC definition of total grain. All figures in this category are calculated as a residual.

3/ PRC definition.

<sup>4</sup>/ Calculated from area and production figures.

5/ Figures for 1977-80 are official figures released by the State Statistical Bureau.



Table 4--Grain production, by province, 1979-80 1/

Province	1979 <u>2/</u>	1980 <u>3/</u>	Claim for 1980 output <u>4/</u>	Source of 1980 report		
-----Million tons-----						
Anhui	16.10	15.00	As reported	FB	1/2/81	08
Beijing	1.74	1.86	As reported	FB	2/4/81	R3
Fujian	7.55	7.68	+0.131	FB	4/3/81	01
Gansu	4.59	4.84	+0.25	SWB	1/7/81	A10
Guangdong	16.75	17.31	+0.555	FB	12/9/80	P2
Guangxi	11.21	11.36	+0.15	FB	3/5/81	P5
Guizhou	6.20	6.45	+4.1%	RmRb	3/28/81	p.2
Hebei	17.05	NA	-	RmRb	12/27/80	p.1
Heilongjiang	14.63	14.50	As reported	FB	3/2/81	S1
Henan	21.35	21.27	As reported	FB	4/22/81	P3
Hubei	18.50	14.91	-16.9%	FB	3/2/81	P6
Hunan	22.11	21.11	-1.00	FB	2/4/81	P5
Jiangsu	24.00	22.74	= 1978	RmRb	12/24/80	p.2
Jiangxi	12.75	NA	- or =	RmRb	12/27/80	p.1
Jilin	9.03	8.59	As reported	FB	4/8/81	Q1
Lianoning	11.94	12.26	+0.315	FB	4/15/81	S1
Nei Monggol	5.10	4.25	As reported	FB	2/10/81	R6
Ningxia	1.06	1.20	As reported	FB	3/18/81	T2
Qinghai	0.82	0.89	+0.07	FB	3/18/81	T1
Shaanxi	8.50	7.60	<u>5/</u>	FB	5/4/81	T3
Shandong	24.72	23.84	As reported	FB	5/6/81	011
Shanghai	2.54	1.91	-25%	RmRb	1/17/81	p.1
Shanxi	7.65	6.86	<u>6/</u>	FB	4/15/81	R7
Sichuan	32.00	32.54	+0.54	FB	3/23/81	Q1
Tianjin	1.39	1.34	As reported	FB	1/23/81	R6
Xinjiang	3.85	NA	- or =	RmRb	12/27/80	p.1
Xizang	0.42	0.51	+19%	FB	4/27/81	Q6
Yunnan	7.93	8.66	As reported	FB	4/20/81	Q5
Zhejiang	15.20	13.81	<u>7/</u>	FB	5/19/81	04

NA means not available.

+ means increase over the previous year.

- means decrease from the previous year.

= means about the same as the previous year.

1/ Sources and data for 1969-79 provincial grain area and production can be found in Francis C. Tuan's, "PRC Provincial Total Grain Production, 1969-79," Research Notes on Chinese Agriculture: No. 2, International Economics Division Staff Report, January 1981, IED, ESS, U.S. Department of Agriculture, 38 pages. Grain defined by China includes wheat, rice, coarse grains, other miscellaneous grains including pulses, tubers expressed in grain equivalent weight, and soybeans.

2/ Figures in the 1979 column may differ slightly from those in Francis C. Tuan's report because more up-to-date information has been received since his report was published.

3/ Claims in the press for 1980 figures are preliminary and probably will differ slightly from final figures which may be released later.

4/ This column gives the claim used to calculate the 1980 output figure when it was not reported directly. In cases where no 1980 output figure is available or derivable, the direction of change reported for the year is indicated.

5/ Estimated by using the grain production per person, 537 jin, and the population of 28.31 million tons in Shaanxi in 1980.

6/ Shanxi 1980 grain output is 10.14 percent less than the 1981 grain production target, which was reported as 7.55 million tons.

7/ Zhejiang 1981 grain output is planned to reach 15 million tons which is reportedly up 8.6 percent from 1980.

Table 5--Area, yield, and production of oilseeds, People's Republic of China, 1976-80 1/

[illegible]

-- = No estimate made.

NA = Not applicable.

1/ Revised from People's Republic of China Agricultural Situation Review of 1979 and Outlook for 1980, Supplement 6 to WAS-21, June 1980. See this report for historical series. Total oilseeds by PRC definition includes all the oilseeds listed in the table except soybeans and cottonseed. Total oilseeds as published in USDA's World Crop Production report monthly includes all the oilseeds listed in the table, except sesameseed and other oilseeds.

2/ Revisions for soybeans and cottonseed series are carried back through 1976, resulting in discontinuity of these series with their historical series between 1975 and 1976. Revisions for all other oilseeds are carried back through 1977 only, resulting in discontinuity of these series with their historical series between 1976 and 1977.

3/ Includes mainly linseed and castorbean and minor amounts of other oilseeds; excludes oil-bearing tree seeds.

4/ Estimated for the marketing year following harvest by applying assumed crush and extraction rates to production plus net imports of soybeans, soybean oil, and soybean meal.

Sources: PRC claims and statistics; USDA estimates.



Table 6--Area, yield and production of cotton, People's Republic of China, 1976-80 1/

Item	Unit	Years				
		1976	1977	1978	1979	1980
Area	Million hectares	4.950	4.850	4.850	4.500	4.800
Yield	Kgs/ha	414	423	447	490	564
	Bales/ha <u>2/</u>	1.90	1.94	2.05	2.25	2.58
Production	Million tons	2.050	2.049	2.167	2.207	2.707
	Million bales <u>2/</u>	9.400	9.400	9.950	10.140	12.430

1/ Production is measured on a ginned-weight basis. Production data for 1977-80 are PRC official figures. Other figures are USDA estimates.

2/ Bales are 480 pounds.

Table 7--Major indicators of textile production, 1977-80

Item	Unit	1977	1978	1979	1980
Cotton yarn	Million tons	NA	2.380	2.630	2.93
	Million bales <u>1/</u>	12.290	13.280	14.670	<u>2/</u> 16.000
Cotton cloth	Billion meters	10.151	11.029	12.150	13.470
	Billion square meters	NA	10.286	11.430	12.800
Chemical fibers	Thousand tons	189.800	284.600	326.000	450.000
Blended and synthetic fabrics	Billion meters	NA	<u>3/</u> 2.000	<u>3/</u> 3.300	NA
Silk	Thousand tons	NA	<u>3/</u> 29.690	29.749	35.400
Silk textiles	Million meters	NA	<u>4/</u> 610.350	663.450	795.000
Woolen piecegoods	Million meters	NA	<u>4/</u> 88.840	90.170	<u>5/</u> 101.600

NA = Not available.

1/ Bale of cotton yarn weighs about 179 kgs.

2/ FB, 2/19/81, p. L-9.

3/ The 1979 figure is preliminary. The 1978 figure is derived from the 1979 figure and the reported 65 percent increase over 1978 (RmRb, 12/19/79, p. 1).

4/ Derived from 1979 figure and reported percentage increase over 1978.

5/ FB, 2/18/81, p. L-18.

Sources: Except where noted, all data are from the State Statistical Bureau communique on 1978, 1979, and 1980 plan fulfillment, in FB 6/27/79, p. L-13; FB 4/30/80, p. L-2 and FB 4/29/81, p. K-9.

Table 8--Cotton production by province, 1980

Region and province	1979 <u>1/</u>	1980	Source of 1980 report
<u>Area in 1,000 hectares</u>			
North China	2,292	2,608	
Liaoning	35	36	RmRb, 11/20/80, p. 1.
Shandong	533	737	FB, 3/27/81, p. 0-3.
Hebei	500	536	RmRb, 11/30/80, p. 1.
Beijing/Tianjin	<u>2/</u> 10	<u>2/</u> 12	Estimated.
Henan	555	603	FB, 12/2/80, p. P-7.
Shanxi	240	247	FB, 3/6/80, p. R-5.
Shaanxi	250	247	JP, Ag, 9/3/80, p. 44.
Gansu	<u>2/</u> 10	<u>2/</u> 10	Estimated.
Xinjiang	159	180	FB, 4/14/80, p. T-1.
Central China	2,178	2,267	
Zhejiang	82	97	FB, 1/16/81, p. 0-5.
Jiangsu	588	600	P.O., 7/ /80.
Shanghai	95	101	JP, Ag, 7/14/80, p. 101.
Anhui	307	333	P.O., 9/ /80.
Hubei	587	581	P.O., 9/ /80.
Hunan	168	168	FB, 6/5/80, p. P-8.
Jiangxi	101	105	JP, Ag, 7/14/80, p. 83.
Sichuan	<u>2/</u> 250	<u>2/</u> 282	Estimated.
Others <u>3/</u>	10	10	
Total, sum of provinces	4,480	4,885	
Total, USDA <u>4/</u>	4,500	4,800	
<u>Production in 1,000 tons</u>			
North China	707	1,457	
Liaoning	16	21	FB, 3/31/81, p. S-1.
Shandong	167	537	FB, 3/27/81, p. 0-3.
Hebei	105	229	JP, Ag, 2/4/81, p. 34.
Beijing/Tianjin	<u>1/</u> 2	<u>1/</u> 3	Estimated.
Henan	194	400	JP, Ag, 3/25/81, p. 44.
Shanxi	64	70	FB, 4/15/81, p. R-7.
Shaanxi	<u>2/</u> 103	<u>2/</u> 107	Estimated.
Gansu	3	11	FB, 12/30/80, p. T-2.
Xinjiang	53	79	FB, 4/14/81, p. T-1.
Central China	1,486	1,289	
Zhejiang	67	75	FB, 1/16/81, p. 0-5.
Jiangsu	<u>2/</u> 532	400	JP, Ag, 4/20/81, p. 42
Shanghai	<u>2/</u> 90	<u>2/</u> 54	Estimated.
Anhui	99	123	FB, 4/17/81, p. 0-1.
Hubei	450	318	FB, 2/27/81, p. P-3.
Hunan	94	85	FB, 1/12/81, p. P-5.
Jiangxi	43	86	JP, Ag, 10/23/80, p. 41.
Sichuan	<u>2/</u> 111	<u>2/</u> 110	JP, Ag, 5/28/81, p. 37.
Others <u>2/</u>	3	3	
Total, sum of provinces	2,196	2,711	
Total, national figure <u>5/</u>	2,207	2,707	

1/ Sources and data for 1973, 1977, 1978, and 1979 provincial cotton area and production can be found in Frederic M. Surls' "China's Cotton Area, Yield and Production by Province: A Partial Data Set," Research Notes on Chinese Agriculture: No. 1, International Economics Division Staff Report, October 1980, IED, ESS, U.S. Department of Agriculture, 18 pages.

2/ USDA estimate.

3/ Other provinces include Guangxi, Yunnan, Guizhou, Guangdong and Fujian.

4/ The totals given here are those in the current USDA series as reported in Foreign Agriculture Circular: World Crop Production. The area series is easily within the margin of error likely present in the provincial area estimates.

5/ As reported by Chinese sources and carried in current USDA series (see 4/ above).



Table 9--Production of other agricultural products, 1977-80 1/

Product	1977	1978	1979	1980
	<u>1,000 tons</u>			
Tobacco	(987)	1,000	750	700
Tea	252	268	277	304
Jute and hemp	861	1,088	1,089	1,098
Silk cocoons	216	228	271	326
Aquatic products	4,700	4,660	4,305	4,497
Fruit	NA	(6,590)	7,250	NA
Rubber	NA	(95)	97	100

( ) indicates derived from percentage increase.

NA = Not available.

1/ All figures except tobacco in 1979 and 1980 are as reported by China.

Table 10--Yearend inventory numbers of major livestock and total meat production, 1949, 1952, 1957, and 1977-80

Type	1949 <u>1/</u>	1952 <u>1/</u>	1957	1977	1978	1979	1980
	<u>1,000 head</u>						
Hogs	57,750	89,770	145,900	291,780	301,290	319,705	305,431
Sheep and goats	42,350	61,780	98,580	161,360	169,940	183,142	187,311
Large animals <u>2/</u>	60,020	76,460	83,820	93,750	93,890	94,591	95,246
of which:							
cattle	43,940	56,600	73,610	70,340	70,720	71,350	NA
	<u>1,000 tons</u>						
Total output of							
pork, beef,							
and mutton	NA	3,385	3,985	7,800	8,160	10,624	12,055
of which:							
pork	NA	NA	NA	NA	NA	<u>3/</u> 10,010	11,341
beef	NA	NA	NA	NA	NA	<u>3/</u> 230	269
mutton	NA	NA	NA	NA	NA	<u>3/</u> 380	445

NA = Not available.

1/ Numbers of animals are midyear numbers.

2/ Including cattle, horses, mules, donkeys, and camels.

3/ Derived by using the percentage of 1980 production over that of 1979 as given by the State Statistical Bureau, PRC.

Sources: All data except where noted are from various State Statistical Bureau reports.

Table 11--Major manufactured farm inputs, 1977-80 1/

	Unit	1977	1978	1979	1980
Yearend farm machinery stocks					
Large and medium-sized tractors	1,000 no.	467	557	667	745
Hand tractors	1,000 no.	1,091	1,373	1,671	1,874
Power-driven drainage and irrigation machines	1,000 hp.	60,046	65,575	71,221	74,654
Annual farm machinery production					
Large and medium-sized tractors	1,000 no.	99.3	113.5	125.6	98
Hand tractors	1,000 no.	320.5	324.2	317.5	218
Tractor-drawn plows, rakes, and sowing machines	1,000 no.	NA	NA	129	NA
Tractor-drawn trailers	1,000 no.	NA	NA	112	NA
Internal combustion engines <u>2/</u>	1,000 hp.	27,410	28,180	29,080	25,390
Rural electric consumption <u>3/</u>	Million kwh	22,200	25,300	28,300	32,100
Chemical fertilizer <u>4/</u>	1,000 tons	7,238	8,693	10,654	12,320
Nitrogen	1,000 tons	NA	7,637	8,821	9,990
Phosphate	1,000 tons	NA	1,033	1,817	2,310
Potassium	1,000 tons	NA	21	16	20
Chemical insecticides	1,000 tons	457	533	537	537

NA = Not available.

1/ All data from various State Statistical Bureau reports.2/ Total national production.3/ Not all for agricultural production. Rural consumption was 10 percent of national electric power production in each year.4/ All figures in nutrient weight. The 1978 breakdown is derived from 1979 production figures and reported percentage changes from 1978. Consequently, individual items do not exactly sum to total.



Table 12--Land utilization, PRC, 1949, 1957, 1978-80, and 1985 plan

Use	: : 1949	: : 1957	: : 1978	: : 1979	: : 1980	: : 1985 : plan
	:	:	:	:	:	:
	:	:	<u>Million hectares</u>			
Total surface area	: 960	960	960	960	960	960
Forest area	: 85	100	115	122	122	142
Afforestable area	: NA	NA	80	200	120	NA
Desert area	: NA	NA	126	126	128	NA
Grassland area	: NA	NA	287	287	280	NA
Useable grassland area	: NA	NA	220	220	233	NA
Reclaimed land	: 0.1	2	NA	NA	<u>1/</u> 21	<u>2/</u> 8
Cultivable wasteland area	: NA	100	NA	33	33	NA
Cultivated area	: 98	112	99	99	99	<u>2/</u> NA
Machine cultivated area	: NA	NA	33	40	42	NA
High stable-yield fields	: NA	NA	<u>3/</u> 34	<u>3/</u> 23	NA	53
Irrigated area	: 16	35	<u>4/</u> 47	<u>4/</u> 47	47	63

NA = Not available.

1/ This figure is the total reclaimed in the 20 years, 1957-77.

2/ This figure is the planned reclaimed area to be added between the late 1970's and 1985; it apparently has been reduced from the original plan of 13 million hectares. Reclaimed area cannot be taken as the planned increase in cultivated area due to shifting of area to other agricultural and nonagricultural uses. China reports the loss in cultivated area due to shifts away from cultivation amounted to 33 million hectares in the period from 1957 to 1977. When coupled with the gain due to reclamation, this indicates a net 13-million-hectare decline in cultivated area during that 20-year period.

3/ The figure used for 1978 is actually the last available claim from 1976. The definition of this category may have been adjusted in 1979.

4/ The 1978 and 1979 irrigated area reported was 46.67 million hectares; the 1980 report claims 47.33 million hectares.

Sources: 1949 and 1957 are taken from the Ten Great Years, People's Publishers, Peking, September 1959, and other official sources, with some figures derived from claimed percentage increases compared with 1949 and 1957.

Table 13--Cultivated and irrigated area, People's Republic of China,  
by province and region, 1978

Province and region	:	Area cultivated	:	Area irrigated	:	Portion of cultivated areas irrigated
	:	<u>Million hectares</u>			:	<u>Percent</u>
Total PRC	:	99.333	:	47.674	:	48.0
Northeast Region	:	18.893	:	2.594	:	13.7
Heilongjiang	:	9.168	:	0.613	:	6.7
Jilin	:	5.046	:	0.858	:	17.0
Liaoning	:	4.679	:	1.123	:	24.0
North Region	:	25.916	:	13.572	:	52.4
Hebei	:	6.665	:	3.655	:	54.8
Shanxi	:	3.914	:	1.089	:	27.8
Beijing	:	0.427	:	0.340	:	79.6
Tianjin	:	0.467	:	0.362	:	77.5
Shandong	:	7.291	:	4.389	:	60.0
Henan	:	7.152	:	3.737	:	52.3
East Region	:	11.295	:	7.695	:	68.1
Anhui	:	4.460	:	2.422	:	54.3
Jiangsu	:	4.649	:	3.336	:	71.8
Shanghai	:	0.358	:	0.358	:	100.0
Zhejiang	:	1.828	:	1.579	:	86.4
Central Region	:	9.725	:	7.101	:	73.0
Hubei	:	3.765	:	2.354	:	62.5
Hunan	:	3.437	:	2.688	:	78.2
Jiangxi	:	2.523	:	2.059	:	81.6
South Region	:	7.082	:	5.173	:	73.0
Fujian	:	1.291	:	1.044	:	80.9
Guangdong	:	3.228	:	2.421	:	75.0
Guangxi	:	2.563	:	1.708	:	66.4
Southwest Region	:	11.483	:	5.372	:	46.8
Guizhou	:	1.897	:	0.799	:	42.1
Sichuan	:	6.645	:	3.303	:	49.7
Yunnan	:	2.722	:	1.116	:	41.0
Xizang	:	0.219	:	0.154	:	70.3
Northwest Region	:	14.801	:	6.091	:	41.2
Nei Monggol	:	2.732	:	0.651	:	23.8
Shaanxi	:	3.844	:	1.249	:	32.5
Ningxia	:	0.894	:	0.241	:	27.0
Gansu	:	3.556	:	0.851	:	23.9
Qinghai	:	0.596	:	0.159	:	26.7
Xinjiang	:	3.179	:	2.940	:	92.5

Source: Calculated from data in Zhongguo Nongye Dili Zonglun, Beijing, 1980, pp. 77-79.



Table 14--Various water facilities and equipment, People's Republic of China, 1949, 1965, and 1972-80

Year	: Irrigation : :and drainage : : equipment :	: Large and : : medium : :reservoirs 1/:	: Total : : reservoirs :	:Motor-driven : : pump wells :	: Small and : :medium power : : stations 1/
	: : Million : horsepower	-----Thousands-----		Millions	Thousands
1949	: <u>2/</u> 0.88-1.18	<u>2/</u> 0.01-.02	NA	NA	0
1965	: 9.1	<u>2/</u> 1.4	<u>2/</u> 14.0	<u>2/</u> 0.1	<u>2/</u> 5.6-6.0
1972	: <u>2/</u> 25.0	NA	NA	<u>2/</u> 0.7	NA
1973	: 30.0	2.0	NA	1.2	NA
1974	: 30.0	2.0	NA	1.3	50.0
1975	: 40.0	2.0	70.0	1.7	60.0+
1976	: NA	NA	70.0	1.8	62.0+
1977	: <u>3/</u> 47.0	2.0+	70.0+	1.8+	<u>4/</u> 70.0+
1978 <u>5/</u>	: 65.6	NA	80.0+	2.03	86.0+
1979 <u>5/</u>	: 71.2	2.5	84.0	2.3	90.0+
1980	: 70.0	NA	80.0+	2.3	90.0+

NA = Not available.

1/ See The Agricultural Situation in the People's Republic of China, Review of 1975 and Outlook for 1976, For. Agr. Econ. Rept. No. 124, Econ. Res. Serv., U.S. Dept. Agr., Aug. 1976, p. 26 for definitions of sizes of water equipment.

2/ Derived from reported increases.

3/ Claims of 50 apparently are rounded.

4/ Claimed both 70,000 small and 56,000 small; probably the 70,000 includes medium.

5/ Some discrepancies exist between the totals given and the reported amounts of increase for the year, particularly for 1978. This may be due to recent adjustments in the statistical system.

Table 15--Foreign trade indicators, People's Republic of China, 1976-80

	:	:	:	:	:					
	:	1976	:	1977	:	1978	:	1979	:	1980
	:		:		:		:		:	
	:	<u>Million U.S. dollars</u>								
	:									
Total trade <u>1/</u>	:									
Total exports	:	7,268		8,101		10,118		13,751		19,300
Agricultural exports <u>2/</u>	:	2,670		2,735		3,255		3,920		4,500
	:									
Total imports	:	6,023		7,121		11,187		15,558		20,500
Agricultural imports <u>2/</u>	:	950		2,110		2,650		3,750		5,000
	:									
Trade balance	:									
All commodities	:	1,245		980		1,069		-1,807		-1,200
Agricultural products	:	1,720		625		605		170		-500
	:									
U.S.-PRC trade <u>3/</u>	:									
Exports to PRC <u>4/</u>	:	135.2		171.3		859.3		1,723.8		3,818.0
Agricultural exports <u>4/</u>	:	--		65.8		614.3		997.4		2,272.6
	:									
Imports from PRC	:	201.9		202.7		324.0		548.5		1,039.2
Agricultural imports	:	55.0		67.1		84.0		85.7		133.1
	:									

-- = None or negligible.

1/ Exports f.o.b., imports c.i.f. Derived from partner-country trade data and estimates. Data for 1976-79 are taken from Central Intelligence Agency, China: International Trade Quarterly Review, Third Quarter, 1980, ER CIT 81-002, Mar. 1981 and from other CIA trade reviews. Figures for 1980 are preliminary estimates. The PRC State Statistical Bureau has released data for 1977-80 in Chinese currency. These show exports of 14.0, 16.8, 21.2, and 26.9 billion yuan and imports of 13.3, 18.7, 24.3, and 27.7 billion yuan for the 4 years.

2/ Rough estimates. Agricultural and nonagricultural commodities could not be completely separated. F.o.b. import data for 1977 to 1980 have been adjusted to the same c.i.f. basis as figures for earlier years. The 1980 estimates are approximations based on very incomplete data.

3/ See Tables 23 and 25 for details.

4/ Includes the estimated value of U.S. agricultural goods transshipped through Canada.



Table 16--Trade in major agricultural commodities, People's Republic of China, by calendar years, 1976-80

Item	1976	1977	1978	1979	1980 <u>1/</u>
<u>1,000 metric tons</u>					
Total grain imports	2,061	6,838	9,309	10,867	13,506
Argentina	--	850	191	912	665
Australia	934	2,985	2,435	3,033	2,018
Canada	987	3,003	3,275	2,742	2,627
United States <u>2/</u>	--	--	3,348	3,995	8,036
Other	<u>3/</u> 140	--	60	<u>3/</u> 185	<u>3/</u> 160
Wheat imports	1,921	6,838	7,985	8,287	11,659
Argentina	--	850	--	885	665
Australia	934	2,985	2,435	2,968	1,998
Canada	987	3,003	3,275	2,751	2,627
United States <u>2/</u>	--	--	2,275	1,604	6,369
Other	--	--	--	79	--
Coarse grain imports	--	--	1,324	2,517	1,828
Argentina	--	--	191	27	--
Australia	--	--	--	65	20
Thailand	--	--	60	34	141
United States <u>2/</u>	--	--	1,073	2,391	1,667
Rice exports	1,446	1,023	1,373	1,095	1,000
Soybean exports	178	120	101	<u>1/</u> 320	125
Japan	133	98	80	267	100
Soybean imports	25	364	109	532	665
United States <u>2/</u>	--	55	57	412	665
Soybean oil imports	13	166	108	112	120
Sugar imports <u>4/</u>	635	1,750	1,408	996	977
Cotton imports <u>5/</u>	142	348	479	849	697

-- = None or negligible.

1/ Preliminary or estimated.

2/ Direct exports plus transshipments through Canada.

3/ Includes rice imports.

4/ Raw value.

5/ Marketing year beginning August 1 of year listed.

Sources: Partner Country Trade Statistics; USDA estimates; see Tables 19, 21, 22, and 23.

Table 17--Grain imports, People's Republic of China, by July/June years,  
1976/77-1980/81 1/

Item	:	: 1976/77 :	: 1977/78 :	: 1978/79 :	: 1979/80 :	: 1980/81 : <u>2/</u>
	:					
	:			<u>1,000 metric tons</u>		
Total grain	:	3,142	8,639	10,969	10,786	14,700
Argentina	:	477	432	1,044	465	200
Australia	:	745	4,603	1,438	3,637	1,450
Canada	:	1,920	3,321	3,181	2,647	2,800
United States <u>3/:</u>	:	--	283	5,209	3,858	9,600
Other	:	--	--	97	179	650
Wheat	:	3,142	8,580	7,995	8,898	13,700
Argentina	:	477	373	885	465	200
Australia	:	745	4,603	1,438	3,572	1,400
Canada	:	1,920	3,321	3,181	2,647	2,800
United States <u>3/:</u>	:	--	283	2,491	2,135	8,800
Other	:	--	--	--	79	500
Coarse Grains	:	--	59	2,974	1,888	1,000
Argentina	:	--	59	159	--	--
Australia	:	--	--	--	65	50
Thailand	:	--	--	97	100	150
United States <u>3/:</u>	:	--	--	2,718	1,723	800

1/ Wheat and coarse grains only.

2/ Preliminary or estimated.

3/ Direct exports plus transshipments through Canada.

Sources: Official partner country trade statistics.



Table 18--Current grain agreements and known contracts, People's Republic of China 1/

Country	Date signed	Grain	Amount	Delivery period	Remarks
			Million tons		
Argentina	Sept. 1980	Wheat, corn, & soybeans	1.0-1.5 yearly	1981-1984	Replaces final year (1981) of May 1978 agreement, extends agreement to include soybeans and sets a minimum amount for wheat. Sales by private contract.
Australia	Jan. 1979	Wheat	2.0-2.5 yearly	1979-1981	3-year agreement due to be renegotiated in 1981.
	Jan. 1979	Wheat	3.0	1979	Two separate contracts under the agreement of 2.5 and 0.5 million tons on 12-month credit.
	Jan. 1979	Barley	0.1	1979	Not part of 3-year-agreement.
	Oct. 1979	Wheat	1.5	Jan.-July 1980	12-month credit terms, similar to past purchases.
	Nov. 1980	Wheat	1.0	Jan.-April 1981	Third contract less than one year and below agreed amount.
Canada	Feb. 1979	Wheat	2.8-3.5 yearly	Aug. 1979-July 1982	3-year agreement with 18-month credit terms similar to previous agreement.
	Sept. 1979	Wheat	2.0	Oct. 1979-July 1980	Contract for first year of agreement period.
	June 1980	Wheat	1.4	Aug. 1980-Jan. 1981	Cash sale for first 6-months of second agreement year.
	Dec. 1980	Wheat	1.4	Feb. 1981-July 1981	Second 6-months contract.
France	Sept. 1980	Wheat	0.5-0.7 yearly	1980/81-1982/83	3-year agreement. Sales by private contract.
United States	Oct. 1980	Wheat & corn	6.0-8.0 yearly	1981-1984	4-year agreement (15 to 20 percent corn). Sales by private contract. Option to purchase up to 9 million tons without prior notification. Government-to-government consultations required for purchases below 6 or above 9 million tons.

1/ Contract data for earlier years is available in previous issues of this report, published annually. Contract data given here is as of April 1981.

Table 19--Imports and exports of oilseeds, fats and oils, and oil cakes and meal,  
People's Republic of China, by calendar years, 1976-80

Item	1976	1977	1978	1979	1980 <u>1/</u>
			<u>1,000 tons</u>		
Exports of oilseeds					
Total seeds, excl. soybeans	59	41	44	<u>1/</u> 75	160
Peanuts (in shell)	44	25	30	<u>1/</u> 50	110
Other seeds	15	16	14	<u>1/</u> 25	50
Soybeans	178	120	101	<u>1/</u> 320	125
Total	237	161	145	<u>1/</u> 395	285
Imports of oilseeds					
Total seeds, excl. soybeans	6	8	1	0	0
Soybeans	25	364	109	532	665
Total	31	372	110	532	665
Net exports of oilseeds					
Total seeds, excl. soybeans	53	33	43	<u>1/</u> 75	160
Soybeans	153	-244	-8	<u>1/</u> -212	-540
Total	206	-211	35	<u>1/</u> -137	-380
Exports of oils, edible & industrial					
Total <u>2/</u>	53	<u>1/</u> 20	<u>1/</u> 39	<u>1/</u> 63	57
Soybean oil	0	2	6	4	2
Peanut oil	14	5	7	22	16
Rapeseed oil	11	5	8	11	10
Tung oil	25	<u>1/</u> 5	<u>1/</u> 12	<u>1/</u> 18	19
Imports of oils, edible & industrial					
Total <u>2/</u>	48	216	191	199	243
Soybean oil	13	166	108	112	120
Coconut oil	24	12	27	21	29
Palm oil	0	25	11	<u>1/</u> 51	60
Linseed oil	11	11	45	14	33
Tallow, edible and inedible	41	104	87	120	110
Exports of oil cakes and residues					
Total <u>2/</u>	38	30	49	<u>1/</u> 41	55
Soybean cake	9	10	19	12	15
Palm kernel cake	20	12	11	8	7
Imports of oil meals					
Fish meal	35	5	15	23	4

1/ Preliminary.

2/ Totals include small quantities of others.

Sources: Partner country trade statistics; Oil World Weekly; ESS and FAS estimates.



Table 20--Soybean and soybean oil imports, People's Republic of China,  
by marketing years, 1976/77-1980/81 1/

Item	: :1976/77 <u>2/</u>	: : 1977/78	: : 1978/79	: : 1979/80	: :1980/81 <u>3/</u>
	: :	: :	: :	: :	: :
	<u>1,000 metric tons</u>				
Soybeans <u>1/</u>	: 253	188	261	810	500
United States <u>4/</u>	: --	55	142	810	440
Others	: 253	133	119	--	60
Soybean oil <u>1/</u>	: 85	184	122	100	120
United States	: --	106	59	100	60
Others	: 85	78	53	--	60

-- = None or negligible.

1/ Soybean marketing year September/August; soybean oil marketing year October/September.

2/ Some double counting with calendar year 1976 figures due to lack of soybean and soybean oil monthly data prior to 1977.

3/ Preliminary or estimated.

4/ Direct exports plus transshipments through Canada.

Sources: Partner Country Trade Statistics; USDA estimates.

Table 21--Cotton imports, People's Republic of China, by country of origin,  
1975-79 1/

Country of origin	Year beginning August 1				
	1975	1976	1977	1978	1979
	<u>1,000 metric tons</u>				
Asia <u>2/</u>	9.4	--	23.1	--	95.3
Africa and Middle East	139.2	61.9	85.3	85.5	91.2
Egypt	25.0	10.2	18.1	15.1	28.6
Iran <u>3/</u>	21.1	5.9	9.7	7.2	--
Kenya	--	--	--	--	NA
Morocco	--	--	--	--	--
Sudan	34.6	13.3	19.9	41.1	<u>4/</u> 49.9
Syria	46.8	28.1	25.5	15.0	9.9
Tanzania	6.1	2.4	2.6	NA	NA
Turkey	3.0	2.0	9.5	7.1	2.8
Uganda	2.6	--	--	--	--
Central and South America	43.1	60.8	134.7	233.3	154.4
Argentina	2.4	1.7	11.1	10.2	12.2
Brazil	7.6	1.5	4.7	8.9	--
El Salvador	8.7	4.4	6.8	14.3	21.3
Guatemala	0.7	18.3	35.5	55.0	<u>5/</u> 56.2
Mexico <u>5/</u>	5.4	16.8	26.5	95.6	<u>6/</u> 64.7
Nicaragua	18.3	18.1	50.1	49.3	--
United States	1.7	--	96.5	141.1	493.7
Sum from reporting countries	193.4	122.7	339.6	459.6	834.6
Total, USDA estimate <u>7/</u>	196.0	141.5	348.4	479.0	849.1

-- = None or negligible.

NA = Not available.

1/ Marketing years beginning August 1 unless otherwise noted. Data as reported by exporting countries.

2/ Mainly Pakistan.

3/ Beginning of year varies between July 23 and August 22.

4/ August-March period.

5/ July-June year.

6/ August-June period.

7/ Includes estimated shipments from nonreporting countries.

Sources: Previous issues of this report; U.S. Department of Agriculture, Foreign Agricultural Service, Foreign Agriculture Circular, FC-1 81; and other third country trade information.



Table 22--Sugar imports, People's Republic of China, by country of origin, calendar years 1976-80

Country of origin	1976	1977	1978	1979	1980 <u>1/</u>
	<u>1,000 metric tons, raw value</u>				
Cuba	254	228	534	486	450
Australia	226	275	114	130	277
Brazil	0	151	157	41	150
Philippines	79	367	<u>1/</u> 200	<u>1/</u> 121	43
Thailand	66	<u>2/</u> 681	240	61	57
Others	10	48	163	156	0
Total imports	635	1,750	1,408	996	977
Exports	38	175	125	117	125
Net imports	597	1,575	1,283	879	852

Note: Totals may not add exactly due to rounding.

1/ Preliminary.

2/ Thailand's 1977 trade statistics gave a figure of only 390,000 tons, but also included exports of sugar to Taiwan, which is both unlikely and not substantiated by Taiwan's 1977 trade statistics.

Sources: Partner Country Trade Statistics; USDA Agricultural Attache Reports; International Sugar Organization, Statistical Bulletins and Yearbooks; and USDA estimates.

Table 23--U.S. agricultural exports to the People's Republic of China,  
by calendar years, 1976-80 1/

Item	1976	1977	1978	1979	1980
<u>1,000 metric tons</u>					
Wheat	--	--	2,275	1,604	6,369
Corn	--	--	1,073	2,390	1,667
Tobacco	--	--	--	--	--
Cattle hides, whole <u>2/</u>	--	1	7	17	347
Soybeans	--	55	57	412	665
Cotton	--	12	127	250	463
Tallow, inedible	--	8	25	11	31
Soybean oil	--	62	44	59	100
<u>1,000 dollars</u>					
Wheat	--	--	291,184	221,406	1,087,309
Corn	--	--	111,726	268,547	224,540
Tobacco	--	--	--	2	--
Cattle hides, whole	--	12	190	772	10,373
Soybeans	--	16,179	15,300	106,722	170,21
Cotton	--	17,519	157,305	357,042	701,298
Tallow, inedible	--	3,690	11,657	6,141	15,538
Soybean oil	--	28,297	26,118	35,894	56,452
Others	44	79	826	933	6,823
Total agricultural	44	65,775	614,307	997,459	2,272,624
Total nonagricultural:	135,156	105,543	244,943	726,341	1,539,500
Total exports	135,200	171,318	859,250	1,723,800	3,812,100

-- = None or negligible.

1/ U.S. domestic exports, f.a.s. value basis. Exports include transshipments of agricultural products through Canada. Transshipments during 1980 consisted of 264,100 tons of wheat valued at \$48 million and 59,100 tons of soybeans valued at \$15.1 million.

2/ Numbers in thousands.

Sources: U.S. Bureau of the Census, U.S. Agricultural Exports, country by commodity, various printouts, 1974-80; U.S. Dept. of Agr., Economics and Statistics Service, U.S. Foreign Agricultural Trade Statistical Report, various issues.



Table 24--U.S. agricultural exports to the People's Republic of China, by fiscal years, 1976-80 1/

Item	1976	1977	1978	1979	1980
<u>1,000 metric tons</u>					
Wheat	--	--	1,047	2,683	4,149
Corn	--	--	--	2,754	1,788
Tobacco	--	--	--	--	--
Cattle hides <u>2/</u>	--	1	6	--	256
Soybeans	--	--	55	142	810
Cotton	2	--	111	141	514
Tallow, inedible	--	3	30	1	31
Soybean oil, crude	--	--	106	59	99
<u>1,000 dollars</u>					
Wheat	--	--	133,764	357,015	691,675
Corn	--	--	--	291,588	225,500
Tobacco	--	--	--	--	202
Cattle hides	--	12	188	2	8,014
Soybeans	--	--	16,256	37,760	200,707
Cotton	2,365	--	150,863	193,495	754,535
Tallow, inedible	--	1,140	14,207	602	15,965
Soybean oil, crude	--	--	54,415	35,894	56,314
Others	66	--	440	816	4,059
Total	2,432	1,152	370,133	917,172	1,956,971

-- = None or negligible.

1/ U.S. domestic exports, f.a.s. value basis. Exports include transshipments of agricultural products through Canada. The fiscal year is the year ending Sept. 30 of the year listed.

2/ Numbers in thousands.

Sources: U.S. Bureau of the Census, U.S. Agricultural Exports, country by commodity, various printouts, 1976-80; U.S. Dept. of Agr., Economics and Statistics Service, U.S. Foreign Agricultural Trade Statistical Report, various issues.

Table 25--Major U.S. agricultural imports from the People's Republic of China,  
by calendar years, 1976-80 1/

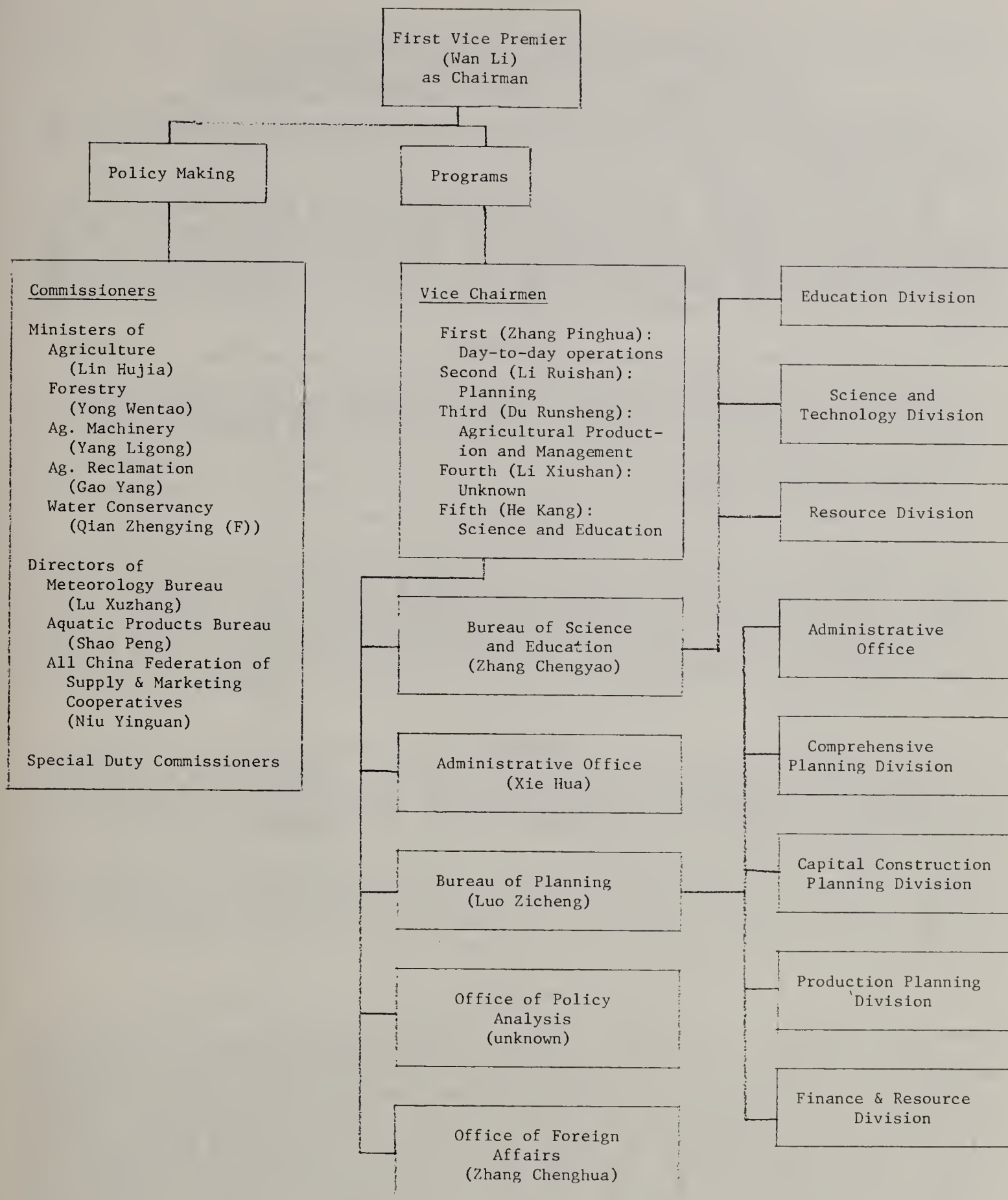
Commodity	1976	1977	1978	1979	1980
	<u>1,000 dollars</u>				
Meats, rabbit, n.e.s., fresh, chilled, frozen	367	275	1,045	950	943
Eggs, not chicken, whole	324	356	234	249	227
Fur skins, raw, undressed	196	19	252	105	476
Vegetables, fresh, chilled, frozen	222	187	249	235	268
Vegetables, dried, dehydrated	613	1,134	1,046	754	1,394
Vegetables, packed in salt brine, pickled, or prepared	434	469	602	942	3,378
Mushrooms	91	59	55	218	13,551
Nuts, edible	3,795	5,561	7,566	7,796	1,800
Fruits, edible, fresh, dried, preserved	479	1,067	1,017	1,381	2,142
Honey	172	200	237	6,534	6,664
Cocoa	489	1,571	1,592	0	0
Tea	2,874	5,186	4,750	7,660	9,922
Cassia and cinnamon spices	2,059	2,416	1,481	1,860	1,017
Other capsicum, cayenne red pepper	1,738	1,527	981	1,414	1,306
Other spices and spice seeds	991	597	455	883	493
Tobacco, unmanufactured	73	5	380	15	114
Tung oil	2,223	0	2,906	3,360	1,451
Other vegetable and nut oils	204	55	335	53	525
Licorice root	451	234	2,474	7,273	12,579
Food preparations	1,386	1,841	2,345	2,466	3,978
Intestines, sausage, casing	133	455	1,622	1,762	3,671
Feathers and downs	14,265	18,978	25,093	9,331	24,155
Bristles, crude and processed	8,049	8,719	6,928	9,636	9,074
Hair, horse, cattle, coarse animal, uncombed	553	1,120	859	947	1,917
Hair, camel	389	809	963	334	1,143
Hair, cashmere, goat	1,913	3,205	3,099	2,668	2,669
Silk, raw	3,948	2,343	4,517	6,442	4,267
Drugs, natural	959	1,487	248	614	1,007
Essential oils	3,498	5,115	6,705	5,007	13,327
Gelatin, inedible	1,088	1,149	3,183	1,657	3,165
Other agricultural commodities	1,003	976	745	3,138	6,485
Total agricultural commodities	54,979	67,115	83,964	85,684	133,108
Total nonagricultural commodities	146,921	135,545	239,986	462,816	906,100
Total imports	201,900	202,660	323,950	548,500	1,039,200

1/ Imports for consumption, customs value basis.

Sources: U.S. Department of Commerce, Bureau of the Census, U.S. Agricultural Imports, country by commodity, various printouts; U.S. Department of Commerce, Bureau of the Census, U.S. Foreign Trade, Highlights of Exports and Imports, FT 990, various issues; U.S. Department of Agriculture, Economics and Statistics Service, U.S. Foreign Agricultural Trade Statistical Report, various issues.



Table 26--Structure of PRC State Agriculture Commission



Source: Charles Y. Liu, "The State Agricultural Commission", The China Business Review, January-February, 1981, p. 57.

## APPENDIX

### Agreement on Grain Trade Between the Government of the United States of America and the Government of the People's Republic of China

The Government of the United States of America and the Government of the People's Republic of China;

Acting in the spirit of the joint communique on the establishment of diplomatic relations between the Government of the United States of America and the Government of the People's Republic of China and the agreement on trade relations between the Government of the United States of America and the Government of the People's Republic of China;

Recognizing the importance of agricultural trade between our two nations;

Wishing to develop further agricultural trade relations between both countries on the basis of the principle of equality and mutual benefit.

Have agreed as follows:

#### ARTICLE I

1. The Government of the United States of America agrees to the supply, through normal private commercial organizations, for shipment to the People's Republic of China during each 12-month period beginning January 1, 1981, except as otherwise provided for in Article II, of a total quantity of at least 6 to 8 million metric tons of United States wheat and corn, of which approximately 15 to 20 percent will be corn.
2. The Government of the People's Republic of China agrees to purchase for shipment during each 12-month period beginning January 1, 1981, except as otherwise provided for in Article II, a total quantity of at least 6 to 8 million metric tons of United States wheat and corn, of which approximately 15 to 20 percent will be corn.
3. Purchases/sales of wheat and corn under this agreement will be made at market prices prevailing at the time of purchase and in accordance with normal commercial terms.

#### ARTICLE II

1. The Government of the United States of America shall endeavor to assure the availability of wheat and corn supplies through advance planning of production and stockbuilding fully to meet the import requirements of the People's Republic of China under the provisions of this agreement. If by virtue of exceptional circumstances necessitating the application of measures limiting the availability of United States wheat and corn in respect to all foreign purchasers of United States grain, it becomes necessary in a particular year to supply less than the quantities specified in Article I, there shall be prior consultations between the two parties as to the amount of such adjustment. Any such measure which shall be applied to the exports of United States wheat and corn to the



People's Republic of China shall be carried out on a basis no less favorable than to such exports to other foreign purchasers of United States grain.

2. If by virtue of exceptional circumstances making it impossible for the People's Republic of China to accommodate available supplies necessitating the reduction of minimum levels of normal imports from all foreign suppliers it becomes necessary in a particular year to purchase less than the quantities specified in Article I, there shall be prior consultations between the two parties as to the amount of such adjustment. Any such reduction of imports of United States wheat and corn which shall be applied to imports from the United States shall be carried out on a basis no less favorable than to imports from other foreign suppliers.

### ARTICLE III

The United States of America expects to supply to the People's Republic of China and encourages the People's Republic of China to meet increased import requirements by purchases of wheat and corn from the United States. Therefore, if during the period that the agreement is in force, the People's Republic of China intends to purchase quantities of United States wheat and corn in excess of the 8 million metric tons specified in Article I by more than 1 million metric tons, there shall be prior notice to the Government of the United States of America. The Government of the United States of America shall promptly inform the Government of the People's Republic of China of any measures which may affect the availability of supplies of United States wheat and corn for purchase by the People's Republic of China beyond 9 million metric tons. This provision has the general purpose of facilitating the growth of trade through improving the availability of information.

### ARTICLE IV

Both sides shall seek to avoid excessive volatility in their grain trade. To this end the Government of the People's Republic of China shall endeavor to space its purchases in the United States of America to enable orderly market adjustment. At the same time the Government of the United States of America shall seek to use its authorities to maintain the stability of United States market conditions for wheat and corn.

### ARTICLE V

For the conduct of the consultations provided for in this agreement, the organization with jurisdiction for the Chinese side will be the China National Cereals, Oils and Foodstuffs Import and Export Corporation. For the conduct of the consultations provided for in this agreement, the organization with jurisdiction for the United States side will be the Foreign Agricultural Service of the U.S. Department of Agriculture. Consultations regarding the conduct of trade under this agreement and regarding the over-all levels of United States export supply and Chinese import requirements for wheat and corn will be held prior to the beginning of each year covered by the agreement, or when requested by either party.

ARTICLE VI

The Government of the People's Republic of China shall assure that, except as the parties may otherwise agree, the wheat and corn grown in the United States of America and purchased by the China National Cereals, Oils, and Foodstuffs Import and Export Corporation under this agreement shall be supplied for consumption in the People's Republic of China.

ARTICLE VII

This agreement shall enter into force on January 1, 1981, and shall remain in force until December 31, 1984, unless both sides agree to an extension.

Done at Beijing this twenty second day of October, 1980, in duplicate, each copy in the English and Chinese languages, both texts being equally authentic.

FOR THE GOVERNMENT OF THE  
UNITED STATES OF AMERICA:

FOR THE GOVERNMENT OF THE  
PEOPLE'S REPUBLIC OF CHINA:





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